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Electrical Merchandising

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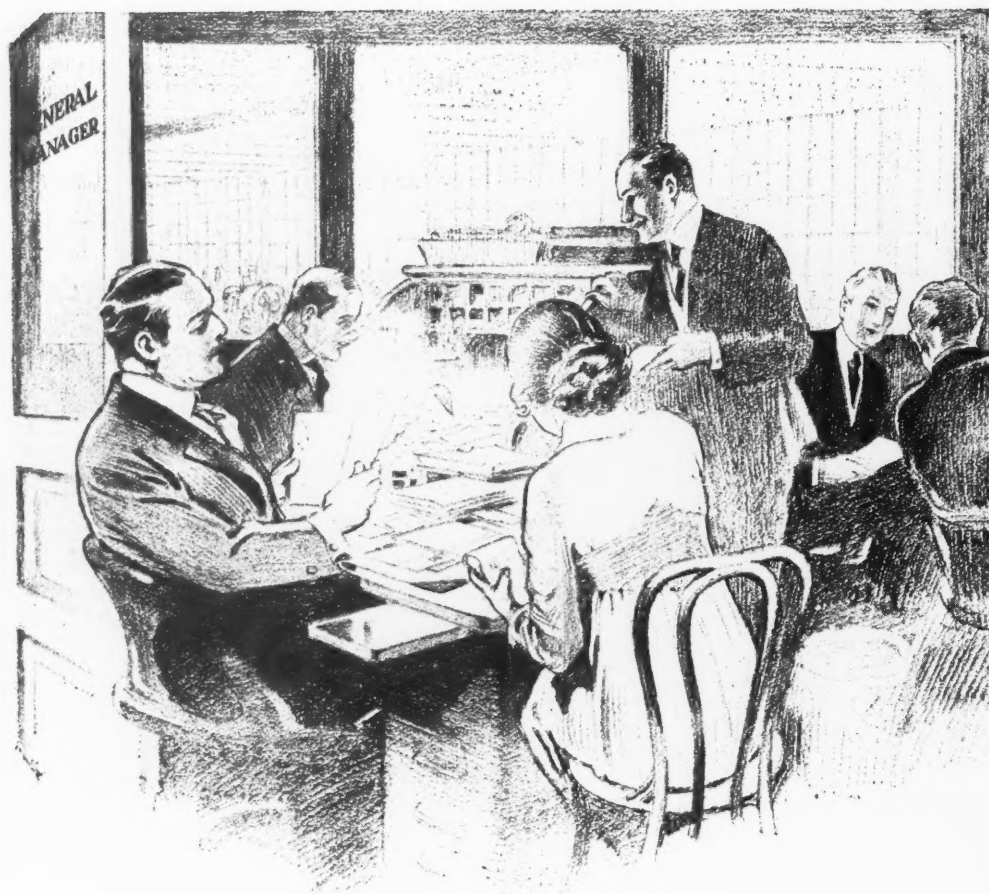
**IF YOU ARE AN
ELECTRICAL MAN
YOU BELONG IN THE**

ARMY SIGNAL CORPS

**IF YOU ARE NOT
WE WILL TRAIN
YOU. GET IN NOW**



WELSH



Advertising Support for G-E Motor Agents

The General Manager of the plant is reading a G-E Motor advertisement.

What are YOU doing in your territory to make this advertisement YOURS? When a manufacturer's advertising interests a prospect, an opportunity for the local seller is created. It is wasted, however, unless the local man is doing his part.

It is the combination that sells the goods. The advertisement only paves

the way—but the dealer cannot expect it to pave the way for HIM if he does nothing to connect himself with it. Think of this as you read this advertisement.

Besides specialized advertisements for individual industries, such as metal working, wood-working, farming, food-making, etc., millions of copies of G-E advertisements go out annually in trade papers reaching miscellaneous industries everywhere.

Classes Reached by G-E Publicity

Chemical Plants	Breweries	Shoe Stores	Theatres
Machine Shops	General Stores	Banks	Apartment
Carpenter Shops	Butchers	Jewelers	Houses
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	Clothiers	Hotels	Residences
		Garages	

Look at the September number of the Electrical Advertiser. It tells how to tie in with this advertising. If you haven't your copy—ask us for it.

GENERAL ELECTRIC COMPANY

General Office:



Schenectady, N. Y.

Electrical Merchandising

The Monthly Magazine of the Electrical Trade

F. M. FEIKER, Editorial Director

O. H. CALDWELL, Editor

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ON THE WIRE WITH THE EDITORS



Put It in Your Show-Window

ON the front cover of this issue appears a copy of the striking recruiting poster of the United States Signal Corps—the important branch of the army service which is of special interest to all electrical men. This poster we reproduce with the co-operation of the Electric Cable Company, which has donated to the Signal Corps for the purpose its own front-cover advertising space. To secure the widest possible publicity for this recruiting appeal, readers who have stores and show windows are asked to display this poster cover in their windows or show cases, or wherever it will be seen by the public interested in electrical subjects, who are likely candidates for U. S. Army Signal Corps work.

And on page 98 we print a list of Signal Corps recruiting offices where applications will be received.

Let Your Banker Help You Sell on the Easy-Payment Plan

IN last month's issue an article, "Renting Money from the Bank," explained how the contractor can borrow money from the bank to finance his larger jobs. This month (page 74) we print the story of a dealer's scheme for co-operating with his bank to sell vacuum cleaners on the easy-payment plan. It will point the way to better business for many an electrical merchant, helping him to sell and his customer to buy.

If you would like such help, show this article to your banker, ask him to read it and to tell you with what modifications of this plan he would be willing to do business with you and your installment customers.

There's profit in it for both you and him!

"To Labor and Material Add 50 per Cent"

FROM the best figures we have been able to get from all parts of these U. S. A., electrical contractors and contractor-dealers' "overhead" runs from 20 per cent to 25 per cent. Maybe yours is different. Add up your bills and find out. And be sure all the items are in.

But figuring 23 per cent as a fair figure, and 10 per cent as a proper profit, how much will you have to add to labor and material to cover overhead and profit in your selling price? We say 50 per cent. And on page 57 we prove it. But if you don't believe it, try figuring it out for yourself.

Your "Electrical Merchandising" Will Follow Your Flag

TO serve our readers who are serving our country, the publishers of ELECTRICAL MERCHANDISING will allow the domestic subscription rate to apply on copies sent to subscribers abroad on the nation's business. Special arrangements will be made to supply such readers promptly and regularly.



Tell us where to mail your copy so that you will not lose touch with your friends and business interests while you are in touch with the enemy.

Cut off from your business associates, it is more than ever important that you be not cut off from a reliable source of electrical and commercial news.

Wherever you may be sent on military duty, ELECTRICAL MERCHANDISING will be sent at no extra cost to you. Let us keep you in touch with America while you are fighting for it.

JAMES H. MCGRAW,
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ARTHUR J. BALDWIN,
Vice-President and Treasurer

E. J. MEHREN,
Vice-President and General Manager

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Elsewhere, \$3.00. Single copy, 20c. When change of address is required both old and new addresses must be given. Notice must be received by the fifth of the month before the change takes place. Of This Number, 13,000 Copies Are Issued.



How many factories in your town are you wiring? Are you maintaining their lamps or motors for them? Have you sold them call systems, lighting fixtures, telephone systems? Have you tried to sell any? Have you? Why not?



In how many offices are you overhauling the lighting before the dark days of fall set in? How many of these same offices need inter-communicating telephone systems? How many are in need of outlets for desk lamps, fans, dictating machines? Do you see business here? Are you getting it?

“Lighten the Labor

WE ARE starting a great buying season. ELECTRICAL MERCHANDISING believes that electrical men have at last awakened to the fact that money can be made in selling electrical merchandise.

The retail side of the electrical business is in the making. Business is waiting for those who go after it. More factories want electrical equipment of all kinds—more homes are wanting to economize with “electrical servants” — more merchants are using electricity for light and for store conveniences—more offices are in the market for electrical appliances.

What the industry needs to do now is to get down to the problem of doing business locally. Manufacturers are getting out “sales helps,” jobbers are awakening to the need of having their salesmen carry *selling ideas* to their trade as well as cigars and a price list.

Forces for merchandising good are at work in the industry. The Society for Electrical Development, the Commercial Section of the N.E.L.A., the Associated Manufacturers of Electrical Supplies, the movement for better merchandising led by Goodwin and others among the contractors’ associations, including the “National”—are all working to improve methods.

But all this effort is wasted if the electrical contractor-dealer business or the retail store business or the central station’s “new-business” business can’t be made to pay locally.

ELECTRICAL MERCHANDISING knows that it has paid in some places and hasn’t paid in others. ELECTRICAL MERCHANDISING exists to localize successful national effort—to make general ideas profitable to individual electrical men.

We want to restate our case.



How many merchants are using lights for signs and show windows? How many have electric fans and motor-driven devices? Have you a weekly repair route for taking care of miscellaneous motors for a fixed sum? Have you? Why not?



Finally, how many homes have you wired, and then sold a fan, a flatiron, a table lamp, a toaster, a vacuum-cleaner, a washer or some other appliance to "Lighten the Labor of the Home"?

of the Home"—Too!

ELECTRICAL MERCHANDISING believes

1. That there is a big, waiting, undeveloped market for electrical merchandise in homes, stores, offices and factories.

2. That national effort gets no business without local intensive selling.

3. That there is money to be made by manufacturer, by jobber, by central station and by contractor-dealer in getting this business.

4. That no business is stable unless it is secured on the basis of making a "net."

5. That local intensive selling to the public must be done by putting every business on its own bottom, knowing costs, and adding profit.

6. That central stations must stop getting business on "volume" and not on net. That jobbers should be jobbers and if they have retail stores they should not fool themselves with bookkeeping profits. That contractor-dealers must go after business.

That manufacturers should adjust discounts so that every man gets a fair profit for what he does.

ELECTRICAL MERCHANDISING, in short, believes that the time has come for the electrical trade to *go after business* and stop "taking orders." It believes that the way to develop a great industry is by showing every man locally what he can do to get more business.

The electrical industry is now starting a fall buying season leading to Christmas. Every reader should make up his mind to work his territory intensively during these months—to show his particular customers how he can help them—and how the electrical merchandise he sells can contribute efficiency and save time, labor and money. The opportunity to sell is everywhere—particularly the opportunity to sell merchandise to "LIGHTEN THE LABOR OF THE HOME."

Selling "Service" Instead of Kilowatt-Hours

How Wilmington's New Fixed-Price "Use-It-as-Much-as-You-Please" Electricity Rate in Combination With Metered Service Is Boosting Wiring and Appliance Sales

SOMETHING INTERESTING has been happening down in Wilmington, Del. In short, they have been putting into practice a new way of selling electric service which looks as if it were going to do a lot toward increasing electric-appliance sales and lightening labor in the home.

The customer likes the new way better. By paying a little more per month, he gets a tremendously larger use of electric service to operate all sorts of labor-saving devices. It means more money, also, to the central station per kilowatt-hour—and a better load factor, too. And from the retail selling standpoint the contractor has benefited because the new plan makes it easier to get more old-house wiring contracts. And local electrical merchants who sell appliances are pleased because this new system not only encourages the wider use of service in the home, but also automatically urges the public to buy appliances to make use of electricity already contracted for and which at odd hours they might not otherwise make full use of. Also the new plan has opened wide the market for electric ranges.

Altogether it is a development of particular interest and great promise. It is new, and you should know about it now. So here's the story of an electric-service schedule that looks as if it meant better things for customer, contractor-dealer, and central station.—*The Editor.*

WAY back yonder when the first young electric lighting company hooked its lines to the lamps of the first lighting customer, the company had a pretty clear idea of what it was it sold. It did not try to interest this customer in buying any "kilowatt-hours." It knew he never used them, had no place to put them, didn't want them, had no idea what they were. So the company just sold him so much *light* for so much money every month. It was a tangible commodity.

And as the years have gone on, with electricity sold by meter, the matter of buying electric service has always been hard for the public to understand, because the meter talks *kilowatt-hours* to a man who thinks in terms of light. The meter makes no promise that the customer's bill will not be higher than he expected. The meter springs surprises on him until he is afraid of it. And this has been an obstacle to sales so evident to everybody that men have been searching for another way that would make some sort of a fixed charge practicable. And it has finally been found.

An ELECTRICAL MERCHANDISING man went to Wilmington the other day and spent the afternoon with W. A. Dannenhauer, sales agent for the Wilmington & Philadelphia Traction Company. He told in detail the story of this new development in selling electric service and the remarkable success that it has had in the past three months. He exhibited the relay-meter device used and also his

reports on the results obtained. Briefly the story is this:

HOW THE "FIXED-PRICE FIXED-SERVICE" RATE OPERATES

In Wilmington to-day they sell you electric service any way you want it. Just as you tell the milkman to leave you so much milk and cream each day at such and such a price, you tell the lighting company to furnish you with so much light, to cost so much a month.

You can drink the milk or let it sour, but it costs the same. You've bought it.

You can burn the light or not, just as you please, but it costs the same. You've bought it.

But as in the case of the milk, you order only what you need for your normal requirements, and you figure it into your household cost at a fixed amount. If you need more milk some days you order it and it costs you extra. If you want to light your whole house up all at once you do so, and the current that you use above your normal contracted-for demand is registered on a meter, and is billed to you as a separate item—extra light or extra electricity.

That is the simple story. It has taken all the mystery out of the buying of electric service.

The way that this has come about is very simple. Alfred W. Burke, who is consulting engineer for the American Railways Company of Philadelphia, had for some years been interesting himself in the device

called an "excess indicator"—in principle nothing but an overload circuit-breaker which would "open"—and keep opening and closing—as long as the load on its circuit exceeded the value for which it had been set. Installed in place of a meter it permitted a fixed amount of electric service to be sold at so much per month, because as soon as the consumer exceeded the demand contracted for—turned on more lights than he was paying for, in other words—the lights began to flicker, notifying the customer that he was taking more electricity than he had contracted for. And then as soon as he turned off the extra lights the switch closed and all was well again.

It was a good idea. It has been the means of putting electric light into hundreds of small homes in Wilmington and many other cities. But it has one drawback. It prevents the customer from using extra current when he wants it and would gladly pay for it. In some cases it prevents him from using heating appliances, for instance.

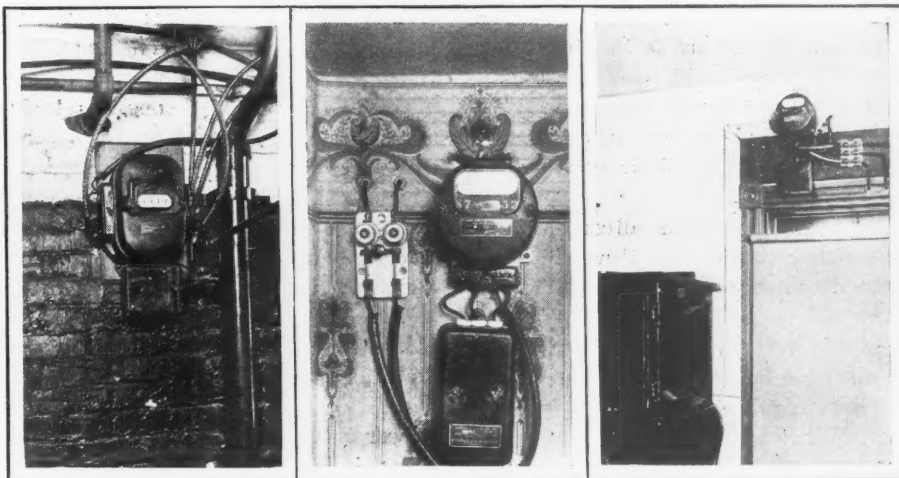
AN "EXCESS RELAY" AND A METER

So to overcome this limitation Mr. Burke, simply enough, combined the overload-relay idea with a meter, so that when the load exceeded a fixed limit, instead of opening the circuit a meter was switched in. The combination therefore works as follows: Up to the amount contracted for, the customer can use so much electricity as long or as often as he wishes, but all

current taken in excess of the demand contracted for is registered by the meter. The result is a perfectly controlled "fixed-price" service available to any customer, no matter what his size.

In a small dwelling, for instance, under the Burke rate, the householder may have a contract just sufficient for his lighting requirements, say 150 watts demand, and when his family uses a flat iron that requires 550 watts, the excess of 400 watts will register upon the meter. For a large house, on the other hand, the customer can contract for a larger normal demand in the same way, and know that his monthly cost will not exceed this amount unless his household deliberately incurs additional expense. And meanwhile all the time their lights are not in use they can use electrical appliances to the full extent of their contracted-for load—all without additional cost. And that's where the electrical merchant's opportunity lies. He can encourage the customer to buy appliances and make the fullest use of the electricity already paid for.

And they sell power service in the same way down in Wilmington. One customer with 35 kw. connected is running on a contract calling for but 15 kw., and by operating his plant intelligently—"dispatching his load,"



Some sample installations of excess relays and meters in Wilmington dwellings. These pictures show the switches and meters controlling service in the three houses below illustrated, in the same order

in other words—this manufacturer is keeping within his limit and is saving money.

"THE CUSTOMER KNOWS HOW MUCH THE COST WILL BE"

"In short," said Mr. Dannenhauer, "we've got a better article to sell. We are selling lighting service, cooking service, or power service. The customer decides how much he wants to buy and he knows exactly what the cost will be. If he should find that he needs more, he uses it without restriction and is billed for it. As his

demand increases he can increase his contract and avoid being charged for excess. We have found that this idea appeals to everyone, from the small householder to our largest power users."

And the central station likes the new plan better, for it assures that the customer's demand will not become excessive; and if it does, that he will pay extra for his high peak consumption. For it must be remembered that a large part of the central station's expense goes on regardless of whether the customer actually uses

The new Wilmington rate is helping win the thrifty small customer because it assures him in advance that his electric light bill need not exceed a fixed amount

And it encourages the average household user to guarantee a larger electric light bill, because for a comparatively small increase it offers him so much more in electrical convenience, comfort and labor-saving service. And for the same reason it encourages him to equip his household completely with electrical devices to make use of the electric service which is his without extra cost at all hours of the day



In this cottage of the better class, electric service is sold on a relay-meter basis with a guarantee of \$4.50 per month, instead of the former guarantee of 50 cents a month under the straight-meter plan. For his \$4.50 guarantee, this customer can at any time use appliances taking any amount up to 700 watts, without paying excess. This makes available every appliance that "lightens labor in the home"



A workman's cottage. This customer guarantees a monthly payment of \$1, giving him 125 watts. But when on any special occasion he wants more light, or to use an appliance, he simply switches on the lamps or appliance, the meter starts to register, and at the end of the month or quarter he gets a bill for a few cents extra



For \$3.75 guaranteed per month, this customer lights his handsome home and runs an electric range. With 600 watts available at all times, he can, when not using the range, or his lights, operate any ordinary appliance which comes within the 600-watt limit. Such a customer would naturally want to have a full equipment of appliances to take full advantage of his opportunities to use electricity

energy or not. The central station, then, can well afford to be liberal during odd hours with this electricity, letting the customer make use of it with the proviso only that the customer pays for what he uses on the high demand.

Now how does this affect the merchandising situation? How will it influence the market for household appliances?

In the first place it opens the door to all those homes which have not put in electric lights because they fear the cost. When such people find that they can buy electric light for so much every month they feel it safe to go ahead. Fifteen hundred old houses were wired this way in Wilmington since Jan. 1. That made business for the contractor at once and for the appliance retailer.

INCREASING BUSINESS AMONG METERED CUSTOMERS

The electric lighting company analyzed its income figures a while ago and found that 2700 residence consumers in Wilmington were paying not over 65 cents a month. Salesmen went to these customers and said: "Are you getting all the comfort from electric service that you should? We are afraid that you are worrying about running up your bills and stinting yourself on light. How would you

like to pay \$1.50 a month and be able to burn, say, up to eight lamps at a time, as much as you want?"

Over 75 per cent of these small consumers that have been approached thus far have gladly taken over the new contract. Over 300 of them have changed over in the last three months and are now paying from \$1 up. Many of them had had electric irons laid away on the shelf, afraid of the cost of using them. They have gotten these irons out and are using them freely, for the additional cost in excess consumption is seen to be but a very small amount.

HOW THE NEW PLAN PROMOTES APPLIANCE SALES

And there's the beauty of it. That's one of the places where this system stimulates immediately the market for appliances. People begin to use electric service in a small way at a small expense—for light. They find that they can use appliances also, for but a small additional expense, and gradually, inevitably, the appetite for electric comfort grows.

And as they come to use more appliances they can increase the demand limit of their contract, still maintaining a fixed price for service, with no fear of unexpected high bills. But meanwhile, the fan, the vacuum cleaner and the washing machine can

all be used without excess demand even by the consumer with a small contract. And so it goes as the contract quantities increase, until in short almost any appliance of average energy consumption can be used for *nothing*, providing its load comes on when the lights are out. What an argument here for the men who sell such appliances!

The new plan has also opened up the market for ranges as nothing else can and Wilmington is averaging 30 ranges sold each month because the customer can buy this cooking service knowing that his monthly bill should not exceed \$3. For while a range's connected load will figure 3600 watts, it can usually be operated satisfactorily on 2 kw. and this service is sold in Wilmington under the excess-relay contract for \$1.50 per kilowatt of demand; or \$3 monthly to operate the range. Mr. Dannenhauer says that many of his customers stay within that figure comfortably, while others are careless at times and run up the demand so that they have an excess charge of 30 or 40 cents. There are 200 ranges now in use in Wilmington on this basis. The range, in short, has come to be a piece of merchandise that can be sold by contractor as well as central station, because the cost of cooking is established and dependable.

A year from now—two years—when the longer experience will have produced a wealth of figures for comparison, it will be possible to prove the influence of this new method of selling electric service as a tangible commodity. At present we only know that it is raising the central-station income from a basis of \$28 per kilowatt-year with the meter to a return of \$59 per kilowatt-year with the excess-relay control. We also know that the contractors have already had a very largely increased business in old housewiring and they themselves say that their appliance sales have increased very considerably. They believe that the new rate plan builds up a bigger appetite for all the comforts of electric service and so sells more appliances, besides urging customers to make use of their odd-hours off-peak electricity by operating appliances when no other use is being made of the electricity waiting at the socket and theirs for the twisting of the switch.

It is taking the mystery out of electric service down in Wilmington and everybody seems the better for it.



How the Customer Can Help the Merchant Cut His Costs

*The United States Commercial Economy Board's
War-time Advice to Retail Purchasers*

1. When shopping, do not leave the store empty-handed. Carry parcels with you to the extent of your ability. Help to make this "the fashion."
2. When you have goods to be returned, do not leave home empty-handed. If all customers would carry small parcels for exchange, the saving of time in delivery departments would amount to thousands of hours annually.
3. Do not buy merchandise until you are sure you are going to keep it. Make careful selection a habit.
4. Avoid C. O. D. purchases whenever possible.
5. Shop early in the day, if possible. Stores must have a sufficient number of salespeople all day long to handle the trade at the very busiest hour, which, due to the habits of customers, is near the middle of the day. To help us distribute the business more evenly would result in great economy—to us, and eventually to you.

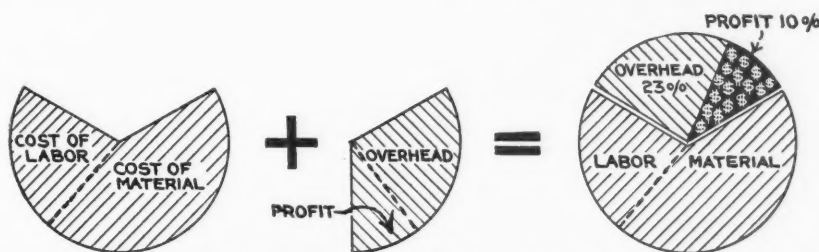
"Labor and Material Cost, Plus 50 Per Cent"

A Simple Way of Figuring Selling Price Where the Contractor-Dealer's "Overhead" Averages 23 Per Cent and He Wants to Allow Himself a Profit of 10 per Cent on His Gross Business—Why It Is Necessary to "Add One-Half to Labor and Material Costs"—The Right and Wrong Ways of Figuring Selling Price

THE electrical contractor or dealer who wants to set his selling prices so that they will return a fair profit above all expenses, must first know, in addition to his

labor and material, add 50 per cent." This gives at once the selling price. And this selling price will net the contractor 10 per cent profit, after repaying him for the 23 per cent outlay

the figures 23 per cent and 10 per cent directly, or 33 per cent. In the case of the job already figured:



"To cost of labor and material, add 50 per cent." Note how by adding to the combined cost of labor and material, one-half that amount, for overhead and profit, the selling price is rounded out, and that this selling price provides 23 per cent for overhead and 10 per cent for profit, both percentages being based on total business.

This diagram also shows clearly that though the overhead-profit allowance is 50 per cent of the cost of labor and materials, it yet represents only "23 per cent and 10 per cent" (or about one-third) of the total selling price.

labor and material costs, his own "overhead" expense—how much he spends each year on "running the business."

There are a lot of items that enter into this overhead—rent, light, telephone, heat, office and officers' salaries, insurance, taxes, etc.—as have been many times pointed out in these pages. When they are all added up, the total is usually surprising.

The best figures that ELECTRICAL MERCHANDISING has been able to collect on contractors' and dealers' "overhead" from different parts of the country, indicate that for every dollar the contractor collects during the year, he spends 20 to 25 cents on "overhead" outlays—from rent to carfare. In other words this shows that 20 per cent to 25 per cent are average figures for "overhead," and that 23 per cent can be taken as a fair average percentage for the contractor's overhead under ordinary conditions. Perhaps your own percentage of overhead may be higher or lower than this average, but the chances are it will not fall far from 23 per cent.

Let us figure, for example, the selling price for a certain job, the labor for which comes to \$40, and the material to \$60, while the margin for overhead is to be 23 per cent, with a profit of 10 per cent for the contractor.

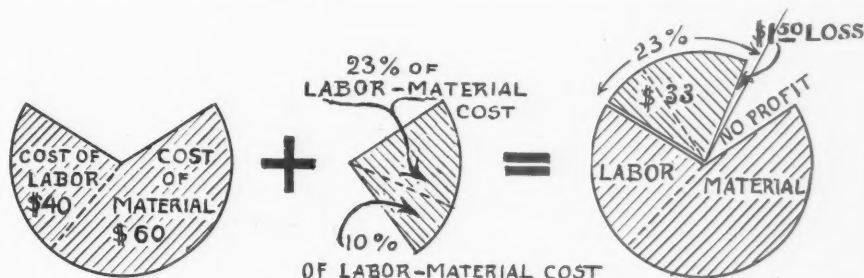
Apply the rule: "To the cost of la-

bor and material, add 50 per cent." This gives at once the selling price. And this selling price will net the contractor 10 per cent profit, after repaying him for the 23 per cent outlay

Supposing, for instance, the labor for the job mentioned runs	\$40.00
And the material for that job costs	60.00
Then the total cost of labor and material will be.....	\$100.00
Adding 50 per cent to cover "overhead" and profit.....	50.00
Makes the selling price of the job	\$150.00
Proof: You collect for the job. \$150.00	
You pay out for labor and material	100.00
	\$50.00
Of each dollar collected, 23 cents or 23 per cent must go to meet overhead (23 per cent x \$150) =	34.50
Leaving 10.3 per cent profit for you	\$15.50

SOME WRONG WAYS TO FIGURE

But supposing the contractor, admitting "23 and 10" to be fair figures for "overhead" and profit, adds instead of the 50 per cent, already suggested,



The wrong way. Here the contractor wishing to allow "23 and 10," added these as percentages of his labor and material costs. As a result his entire allowance for overhead and labor fell short of covering even the overhead properly chargeable to the job (as taken from the first example), so that not only did he really make no profit but he actually lost \$1.50 on the job.

Total cost of labor and material.....	\$100.00
33 per cent x \$100 =	33.00
Supposed selling price.....	\$133.00
Subtracting cost labor and material	100.00
	\$33.00
Subtracting "overhead" properly chargeable to job, as already shown	34.50
Leaves, instead of profit, actual loss on job	\$1.50

Or, worse yet, supposing the estimator puts aside all allowance for "overhead," and adds to labor and material only "10 per cent for profit."

Total cost, labor and material, as before	\$100.00
10 per cent x \$100.....	10.00
Supposed selling price.....	\$110.00
Subtract cost of labor and material.	100.00
	\$10.00
Subtract "overhead" properly chargeable to job, as already shown....	34.50
Leaving, instead of profit, an actual loss on job of.....	\$24.50

There are many ways and many theories for including "overhead" in the price, as pointed out on page 81 of this issue by Edwin L. Seabrook in his excellent article on estimating methods which will be of interest to the man who wishes to study the subject further.

The method here outlined involves of course only the simplest steps, but will prove useful to the prudent business man who wants to provide in his selling price a fair profit for himself, after repaying his outlays for "overhead," for by this method he can include his "23 and 10" by the simple process of adding 50 per cent to costs for labor and material.

The Plan to Broaden the Membership and Usefulness of the National Electrical Contractors' Association

How it Is Proposed to Create a Representative and Strong Organization of Electrical Contractor-Dealers Made Up of Local, State and Sectional Associations

Contractors Urged to Add Retail Electrical Merchandise Lines

New Plan Expected to Be Ratified at New Orleans Convention of N. E. C. A. in October

WITH more than 20,000 electrical contractors, contractor-dealers and retailers of electrical merchandise in business in this country to-day—barely 6 per cent of whom are represented in the 1200 members of the National Electrical Contractors' Association—it has been evident that not only might the membership of the N. E. C. A. be greatly enlarged, but its usefulness to contractors and retail electrical merchants could be correspondingly increased, if some comprehensive plan of organization were offered which would gather into the one fold the many contractors' associations now operating separately, besides the thousands of contractors and dealers who at present have no affiliations whatever.

The subject of expanding the scope of the national association was discussed at the recent N. E. C. A. executive committee meeting at Chicago, and, realizing the timeliness of such a movement, President Stearnes ap-

pointed as members of a committee to draft a new constitution and organization plan Earnest McCleary of Detroit, James R. Strong of New York City and W. L. Goodwin of San Francisco, Cal.

This committee on constitutional revision has held several meetings and expects to present its report outlining such a plan at the New Orleans convention in October, when it is likely that definite action will be taken.

Meanwhile, through the courtesy of the constitution committee we present here an outline of the ideas and purposes which are under discussion and which will doubtless form the basis for the new scheme of organization.—[Editor ELECTRICAL MERCHANDISING.]

* * *

TO bring about closer affiliation between the electrical contracting and merchandising interests of the country, as has been

pointed out, it is essential to increase the membership of the national association to a number sufficient to represent adequately the 20,000 or more electrical contractors and dealers of the United States.

Moreover, it is asserted, a great national association of electrical contractors, built along broad lines, with a large representative membership and a substantial annual income, can undertake research work and the compilation of statistics on behalf of the contracting fraternity, besides conducting an organization capable of producing results not possible under the present conditions.

LET LOCAL MEMBERSHIP ADMIT TO STATE AND NATIONAL

Many leaders in the N. E. C. A. have long felt that every member of every local association should automatically be a member of his own state association and of the national organization as well. This would

"Standardization—Co-operation—Quality—Service"

By ROBLEY S. STEARNES
President National Electrical Contractors' Association

A new era is upon the electrical industry. How shall we meet the issue? My idea is that we should organize a central body, composed of able, unbiased men from the four great national associations of electrical manufacturers, jobbers, central-station men and electrical contractors, and determine what scope each of these organizations shall cover.

This will greatly increase the strength and membership of each organization—more especially that of the Electrical Contractor and Dealer. My idea is that local and state organizations should be governed in policy by the principles set forth in the national body, applying these to local and state conditions, and that representation in the National should be through state bodies where-



ROBLEY S. STEARNES

"The National Electrical Contractors' Association Slogan"

ever there are sufficient members to organize a state association.

Mr. Goodwin has undertaken a Herculean job, and he is "getting away with it." The success of his plan is, to me, assured.

When this plan has been well understood by the electrical contractors and dealers and when the question of organized labor has been satisfactorily dealt with nationally—those electrical contractors who conduct their business on a business basis will find themselves in a stable and profitable condition, while those who employ lax methods of doing business, and fail to know their costs, will be eliminated. Then, and only then, will the electrical contractor come into his own. Then, he will have his proper place in the world of business, he will regain the confidence of the public, and he will do his part to make the great electrical industries of the nation prosperous.

mean, of course, that on its part the National Electrical Contractors' Association should adopt policies which do not conflict with those of the other associations.

It is, therefore, a part of the pres-

ent plan of constitutional revision to line up the N. E. C. A. with these state associations as suggested in the organization chart on page 60—in this way increasing the national membership, at the same time making the state associations more effective, and encouraging the local associations.

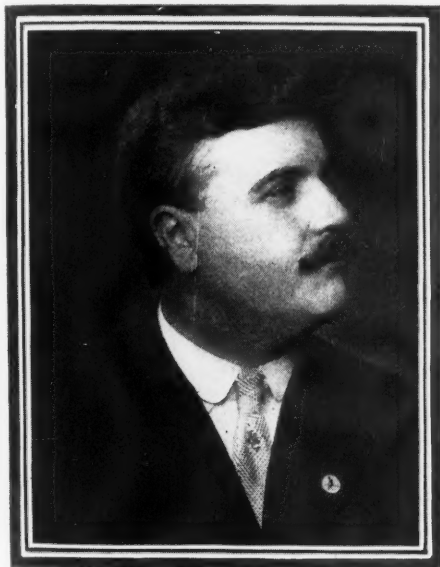
As indicated in the diagram, the proposed scheme follows somewhat the idea of the federal government with its city, state and national organizations. It is proposed, however, to subdivide the association into Eastern, Central and Pacific divisions, whose division directors will name the national executive committee directors.

NATIONAL EXECUTIVE COMMITTEE THE GOVERNING BODY

The national executive committee, in whom is vested the management and custody of the funds of the association, would, according to the plan, appoint the national chairman, secretary and treasurer, who would serve for one year each. The division directors, one of whom would be named by each state in that division, would similarly appoint the chairman and division secretary in their own divisions.

The state association would then, as now, be presided over by a president and the usual officers, while the various locals would have their own executives, as at present. But just as a citizen of the United States is at one and the same time a citizen of

his own town, county and state and of the nation, so the N. E. C. A. member, it is planned, must also be a member of his local association before he can claim membership in the state and national organizations.



Every Contractor Should Attend New Orleans Convention Whether N.E.C.A. Member or Not

By J. T. MARRON, Rock Island, Ill., Executive Committeeman, N. E. C. A.

Every thinking electrical man must recognize the vital necessity of awakening the electrical contractors of the country to their present great opportunity for getting in line to attend the national convention to be held in New Orleans Oct. 10 to 13, and to help in the movement to be launched at that time.

We all know that "in numbers there is strength." Strength and co-operation means dollars and cents to every electrical contractor in the United States.

In my attendance at various local, state and national meetings I have noticed the trend toward a general economic readjustment in the electrical industry. In particular, I believe the work being carried on now by W. L. Goodwin should receive all possible assistance from every one in the electrical industry. Every electrical contractor in the United States should covet a membership in the National Electrical Contractors' Association, and all electrical contractors, regardless of whether they belong to the association or not, should make it a point to attend the convention at New Orleans.

Our movement is intended for the purpose of making a larger, better and, most important of all, a more profitable vocation for those who are giving their time and abilities to it. To this end all thoughts or suggestions will be greatly appreciated by the National Electrical Contractors' Association, which extends a cordial invitation to all electrical contractors, whether members of the N. E. C. A. or not.



The Contractor Is the Logical Distributer of Electrical Merchandise

By JOSEPH A. FOWLER, Memphis, Tenn., Executive Committeeman, N. E. C. A.

One hundred million dollars represents the purchasing power of a branch of the electrical industry which has been receiving only the spasmodic attention of the men "higher up." This has resulted in the electrical contractor and merchant growing up only partially organized, poorly educated, and with but a very questionable rating as to his credit.

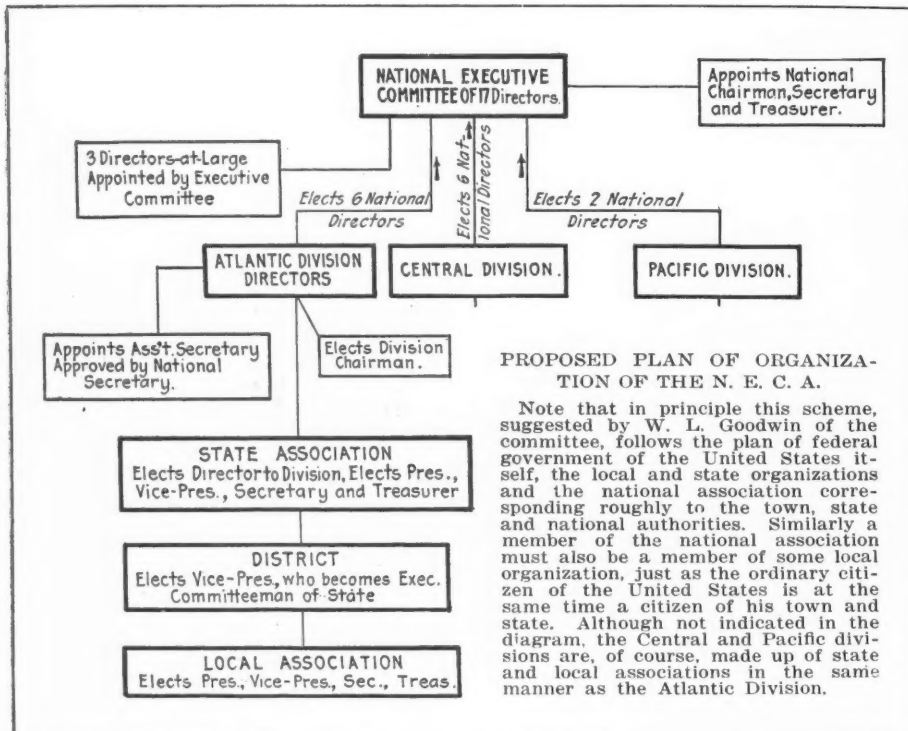
But a conviction is now permeating the electrical trade which recognizes the obvious principle that the logical distributor of electrical merchandise to the consumer is the Contractor-Dealer. The "Goodwin Plan," which is now engaging the attention of the National Electrical Contractors Association's executives, contemplates definitely establishing the vast army of contractors as merchants recognized as such by the industry, with intensified co-operation to this end from manufacturers, central stations and jobbers.

This movement which has been received so enthusiastically by the organizations of the trade cannot fail to largely benefit the individual contractor, even if it falls short of the ultimate aim. That it shall not fall short must be the hope of every contractor in the country whether he be organized or not organized.

The plan and its relation to the contractor will have a prominent place in the New Orleans convention program next October. If you are not a member join now and cease to simply be a man "somewhere in the electrical trade," but aid in becoming a member of a "two-hundred-million dollar distributing factor."



EARNEST McCLEARY, Detroit, Mich.
Past-President N. E. C. A. and Member of
Committee on Constitutional Revision



EVERY ENCOURAGEMENT TO BE GIVEN THE ELECTRICAL MERCHANT

One of the principal planks in the new platform will be that of encouraging electrical contractors to establish attractive retail stores for the sale of electrical merchandise. A strong association, it is further pointed out, can also be of the greatest assistance in bringing about friendly relations between electrical contractors and retail dealers, and others engaged in the electrical industry, and in exchanging cost data, as well as credit information and ledger experience, concerning persons and firms with whom members do business.

The constitution committee has discussed the idea of instituting three classes of membership. There will be (1) honorary members, (2) full members, and (3) associate members.

DUES PROPORTIONED ON BASIS OF MEMBERS' ANNUAL BUSINESS

For full membership it is planned to make eligible all persons or firms engaged principally in the electrical contracting or merchandising business. Others who operate electrical businesses of any kind as departments or sidelines will be eligible as associates, a class of membership which carries no voting powers.

A membership initiation fee of \$10

for both members and associates has been suggested, while the annual dues proposed range from \$5 per year for a member doing less than \$12,000 a year gross, and \$10 a year for a business of \$25,000 to \$50,000 gross, all the way up to \$100 a year for the fortunate member doing half-a-million dollars' worth of business annually. In this way it is proposed to adjust the burden of meeting the cost of running the association proportionately to the benefit which each member receives.

A constitution is now being made, devised by the committee members appointed by President Stearnes, and will be ready for discussion and, it is expected, adoption at the New Orleans convention, Oct. 10 to 13.

FUTURE CONVENTION PROGRAMS

At future conventions of the national and state associations it is hoped to avoid the practice of taking up the time of meetings with perfunctory business routine, such as the election of officers, parliamentary discussions, etc. Any member who has attended a convention of that kind will agree that the valuable time at conventions and meetings of members can best be devoted to the reading of papers and discussion thereon, reports of committees and discussions, and only such other live topics as are of real individual and personal interest to members. This will be possible under the proposed plan since, as already explained, it is provided that all details of running the association be handled by the national executive committee at its various sessions during the year.

Why the Adequate Development of the Electrical Industry Demands Strong Organization of Electrical Contractor-Dealers

By W. L. GOODWIN

Member of N. E. C. A. Committee on Constitutional Revision

The sales possibilities before the electrical industry today reach almost inconceivable figures. Present sales, for example, approximate \$700,000,000.

What is the most practicable way of doubling this volume in advance of the normal growth and at the same time developing a stable, healthy profitable condition in all branches of our industry? This is the problem before us.

To undertake this task an organized industry is required. Is our industry organized? In certain branches, yes—for example, the central stations and the jobbers have efficient strong organizations, representing the majority of the companies engaged in these branches of the industry, but the contractors and dealers must strengthen their organiza-

tion. While the manufacturers have been fairly successful in solving their problems, still their crying need is for proper and efficient distribution.

Lack of proper retail distribution is one of the millstones about the neck of the industry today. We have perhaps 25,000 concerns now engaged in retailing electrical merchandise, but because of improper methods and in fact ill of other descriptions many of these concerns are financially weak. Failures have been innumerable and they will continue, with all that that means to all concerned, until Mr. Contractor-Dealer arouses himself from his lethargy and does his part.

The question of retail distribution must be solved or the present condition

—unsatisfactory as it is to all the branches of the industry—will continue. In fact, the writer is not at all sure the conditions will not become worse.

The electrical retailers—who comprise contractors and dealers—need therefore a good strong organization comprising national, state and local sections. Such an organization can produce a healthy growth in our industry beyond normal development, and all the while producing profit to the interests participating. That is the goal for which the writer is striving. The present effort looking toward lining up the industry should appeal at this time to every electrical man as a movement deserving his hearty support—for it is an opportunity which comes to an industry only very rarely.

"Two Hundred Cleaners or Bust"

ADOPTING the month-by-month sales campaign schedule suggested by the N. E. L. A. committee on co-ordinate advertising, Sales Manager Thomas Kelly of the Dayton (Ohio) Power & Light Company early in the year determined to set aside the month of March to devote to the sale of vacuum cleaners.

The campaign was accordingly launched on March 1, with eight salesmen, each man being assigned to a particular district. In addition to these regular salesmen a few sales were made by four other men who devoted a portion of their time to the campaign.

Mr. Kelly adopted as the slogan for the campaign "200 or Bust," and it is interesting to note that the campaign closed on April 1 with the gratifying result of 204 suction sweepers being sold. The daily record is presented herewith.

Publicity was given to the sale through the newspapers, through ads on the company's lighting bills, through good window displays, and through demonstration of the machines at the office of the company.

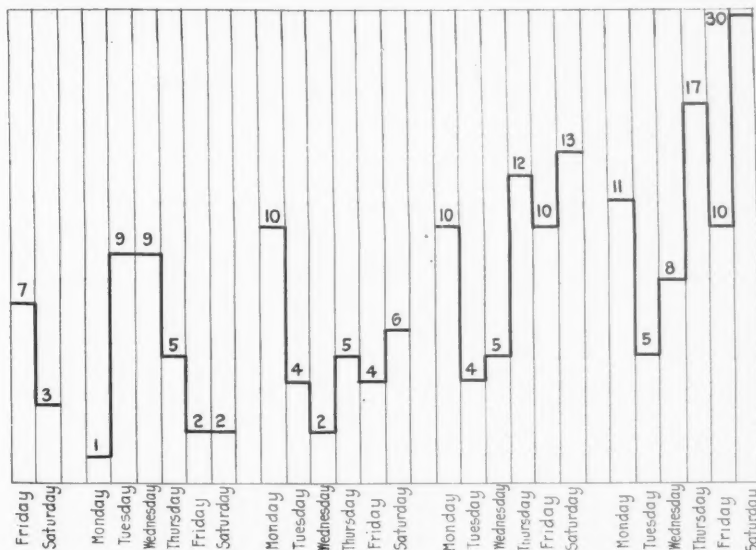
To keep a daily check on the results of the salesmen and the total number of cleaners that had been sold, a clock dial (seen in the photograph) was devised. This clock, as shown, indi-

cated the date and the number of sales up to that time.

The enthusiasm of the salesmen was kept at white heat throughout the campaign by occasional short talks at

salesmen, provided 200 of the Hoover sweepers were sold, and this event took place immediately upon the close of the campaign.

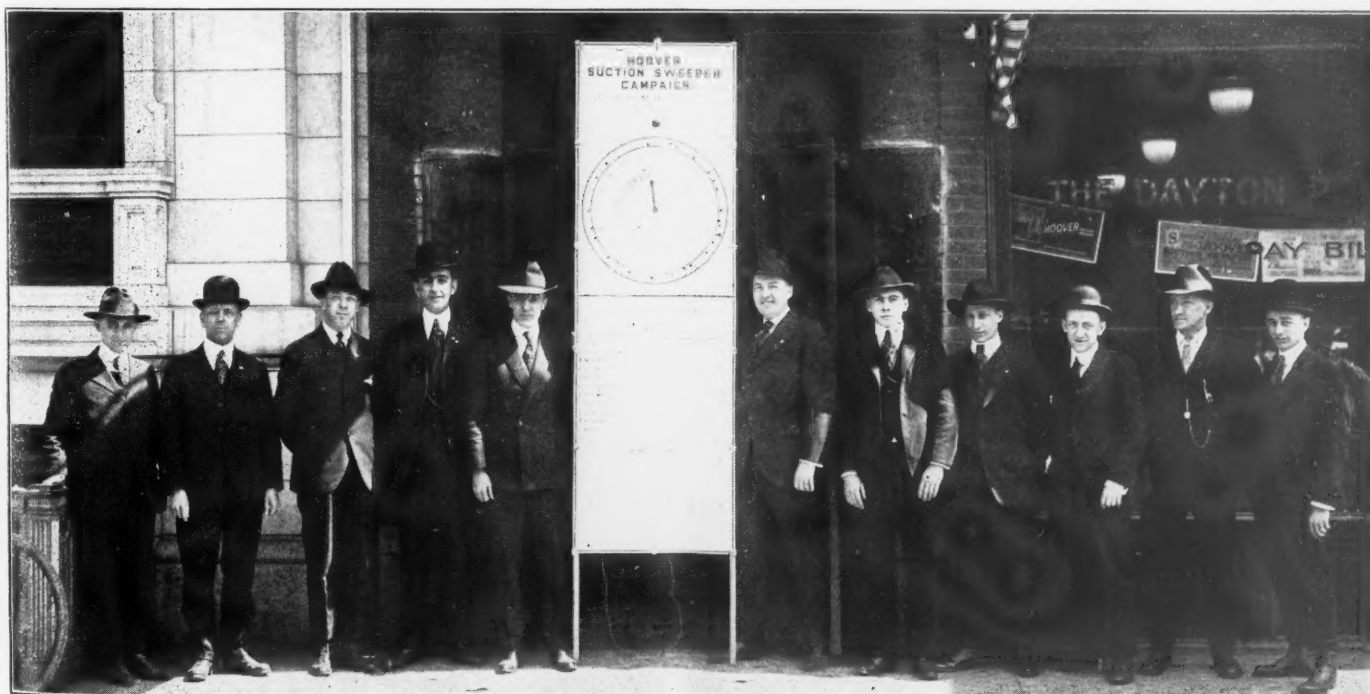
As an extra inducement, on March 23 each salesman was assigned a "bogey," and Manager Kelly offered a year's subscription to ELECTRICAL



How the crew sold vacuum sweepers day by day. As an interesting bit of selling psychology, note that each "high" day was usually accompanied by an "off" day, when fewer sales were made. Observe also that after the campaign got started, Monday was invariably a good day for "closing" sales, following the family councils of the preceding Sabbath. Tuesday, however, showed the effect of Monday's closing effort, but sales were invariably boosted to high rates again by the end of the week. The same effect may be noted viewing the campaign as a whole, for the drive ended in a whirlwind finish, with thirty cleaners sold the last day.

the morning meetings of the department by "live-wire" salesmen from other concerns in the city. When the sale was inaugurated a dinner and theater party was promised to the

MERCHANDISING to each salesman who sold the required number of suction sweepers. As a result, the magazine was ordered for all of the salesmen except one.



This is the sales crew that conducted the campaign. Sales Manager Thomas F. Kelly stands modestly in the center of the left-hand group of five. The big clock-dial that recorded the progress of the vacuum

cleaner drive, bore also the names and daily records of each salesman as an incentive for each man to do his utmost to exceed the records of his associates



WHERE THE INDUSTRY'S IN LINE

Notable Gathering of Representatives of All Electrical Branches at Santa Cruz
Meeting of California Association of Electrical Contractors and Dealers—All
Interests Show Desire to Improve Business Methods for Common Welfare—
What the California Contractors-Dealers Are Doing and Thinking About

THE annual convention of the California Association of Electrical Dealers and Contractors, held at Santa Cruz from July 11 to July 14, was a real one. It was not only well attended, but among the 270 members and delegates who put everything else aside for the meeting there were representatives from all of the eight sections into which the Golden State has been divided by the association.

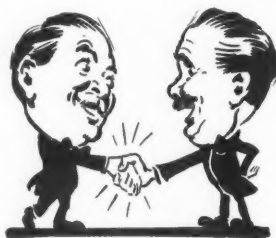
All branches of the industry were represented, too, including manufacturers, jobbers, central stations, the Board of Fire Underwriters, and the State Association of Electrical Inspectors. All of these interests showed themselves not only ready, but eager, to respond to any suggestions for closer working together. Men who attended went back to their work with a new enthusiasm born of the conviction that rapid strides are being made toward the elimination of useless friction and lost motion between trade divisions which really have a common object. Remarkable progress has already been made, and the largest convention in the history of the California association points an unwavering finger toward a most successful future.

IDEALS THAT LEAD TO BUSINESS SUCCESS

In his presidential address, Frank J. Somers of the Century Electric Company, San Jose, emphasized the high ideals toward which the contractor-dealer will do well to aim if he would achieve the greatest success.

The warmth of the applause with which Mr. Somers' talk was received indicated how thoroughly the men who are really getting a business view of the electrical field appreciate these ideals. Mr. Somers enumerated these ideals as follows:

"Confidence, first in myself—with a fixed determination to be fair, to be just, and honest with myself. Next, confidence in my fellow-member, and by my conduct to gain his confidence in me, not taking undue advantage of his lack of business knowledge or



"I want to have confidence in my fellow contractor-dealer, and by my conduct to gain his confidence in me."

other conditions, but ever extending a helping hand with a willing heart and a desire to see him succeed. To this end I will put all the cards on the table with him.

"Further, that my competition will be honest, clean, rational and constructive. Last, but not least, confidence in the California Association, knowing that co-operation—the working together of each for the other, breeds confidence. These, my boys, I am proud to say, are the lines upon which our association of to-day is constructed.

"With all branches now organized and co-operating, serious consideration to ways of united action through statewide publicity campaigns to up-building and supporting the dealer, has been in progress for some months past, and it is hoped that the point of determination on some one definite plan, and ways and means for placing that plan in operation, is not far distant. It is here suggested that some such plan as above suggested be started at the earliest practicable date.

"The contracting side of our business has made rapid strides during the past year or more. The retail side and the problems of the retailer, I believe, should be given more consideration from a state standpoint, than we have been able to devote in the past. Our policy in this respect should be a broad one, including the establishment of a retail section of our organization, which shall include all classes of stores retailing electrical merchandise, as department and hardware stores. Such stores are here to stay, and it becomes our duty to properly educate them to a real understanding of the characteristics of our line of goods and the obligations they entail."

EDUCATION OF MEMBERS IS ASSOCIATION'S GREATEST PROBLEM

"The Diversified Problems of Electrical Contracting" were discussed broadly in a paper by C. F. Butte of the Butte Engineering & Electric Company, San Francisco. He dwelt

first upon the great advantage of co-ordinating effort, and cited as an excellent example the co-operative spirit that prevailed at the Riverside convention of the Pacific Section of the N. E. L. A., and which was largely due, he believed, to the readiness to get together shown by the representatives of many branches of the electrical field.

"The greatest problem before any association," said Mr. Butte, "whether it consists of electrical contractors and dealers, jobbers, manufacturers or central stations, is the education of its members. Education not in the sense of an academic learning, technical knowledge, or literary achievements, but in the sense of ordinary every-day methods of carrying on our busi-



"The greatest problem before an electrical association of any kind is the education of its members in stable business methods."

ness in a uniform, stable, economical and profitable manner. Educating each other to consider and study the many and divers problems entering into our business, educating each to properly classify each part of our business, conduct our transactions along legitimate business lines, and, foremost of all, educating each other to raise ourselves out of the '200,000 class' referred to in the reports of the Federal Trades Commission as follows:

"Two hundred thousand out of 260,000 firms engaged in business in the United States are merely eking out an existence; 100,000 of them have not earned a penny. Only 10 per cent of the 200,000 firms know the actual cost of handling and selling their product; 40 per cent of them merely estimate their costs and 50 per cent have absolutely no idea of their cost, but merely haphazardly guess and establish their costs arbitrarily.

NECESSITY FOR COST DATA

"The purpose of conducting any business or project is to make a profit, and the only way to make a profit is to sell something for more than it costs. Consequently the first essential of any

business house is to know the cost and that an accurate determination of cost is closely related to efficiency and proper business methods. Primarily, costs consist of three elements, and these three elements are material, labor, and expense.

"In our contracting business, the first two elements—material and labor—must be determined by proper estimating methods whereby these two elements can be properly and correctly computed from the plans and specifications. It appears that a proper, consistent, uniform and universal method for the computation of material quantities has not been formulated as yet, and this question alone is broad enough to justify an individual discussion. Many times have we noted a wide variance in the estimates for material on the same plans and specifications, in comparing the quantities given by various estimates.

DUPLICATION OF SALES EXPENSE SHOULD BE ELIMINATED

"We know the manufacturer has practically a fixed overhead charge in the operation of his plant. Do we know whether the manufacturer is not duplicating to a great extent the same selling expenses that the jobber has to incur? Do we know whether the cost of placing a manufactured article in the hands of the contractor dealer is not excessive on account of the possible duplication of selling expenses? Should not the manufacturer eliminate some of his selling expense and allow the jobber and dealer a greater margin between the fixed manufacturing costs and the price at which the consuming public will purchase the material and apparatus?

"Would it be possible to maintain the present industrial prices and the jobbers allow the dealers and contractors an additional discount over and above the present prices if the manufacturer would eliminate whatever duplicate selling expenses may exist? Do we not receive catalogs and literature covering identical materials both from the manufacturer and jobber? Do we not oftentimes have visits from the manufacturer, endeavoring to sell his product, and then purchase the same product from the jobbers?

"Why cannot the manufacturer eliminate these expenses and sell his product through the jobber without incurring duplicate overhead costs,

thereby cutting down the ultimate price to the contractor-dealer, permitting the contractor-dealer to obtain considerably more business at the present prices and at a reasonable margin of profit."

STANDARD PRICE LISTS SHOULD BE ISSUED

In his paper on "Retailing and Merchandising," L. Levy of the Levy Electric Company, San Francisco, spoke of the importance of encouraging the beginners in the retail business as much as possible.

In Mr. Levy's opinion, one of the most vital aids to the new retailer is a price list of standard articles, to be furnished him by his association.



"Do we know whether the cost of placing a manufactured article in the hands of the dealer-contractor is not excessive on account of possible duplication of selling expenses?"—C. F. Butte, San Francisco.

"This price list," he said, "should be a ready reference and should be figured on a basis that will permit a small buyer a profit over his overhead.

SPECIAL PACKAGES BOOST LAMP SALES

"Our association should take the lead in furnishing our members with this list, and also go further, and give non-members and non-electrical houses the benefit of this work, for there is nothing better than having the resale prices on standard articles the same all over, and the non-electrical houses, I believe, would be quite willing to follow a price that is issued from an organization and composed of the legitimate dealers, such as ours.

"I have found that it pays to continually show Mazda lamps, and that, considering turn-over, the lamp is the most profitable item I sell. I find that I do not have to give any time to selling lamps, as people are sold before they come into the store. I have separate drawers for the different sizes of lamps, and have them already wrapped in packages of six, five, two and one. I find that it makes for quick service and saves the neces-

sity of testing every lamp that is sold, and gives one an opportunity for inclosing advertising matter in each package delivered. We find that people will order half a dozen, and if we stop to wrap them and they find that only five come in a box, they will change their order to the lower number.

FINDS RETAIL SUCCESS IN CONCENTRATION OF BUSINESS IN RESIDENTIAL SECTIONS

"You perhaps know that at the present time my place of business is located in a residence section of the city and not downtown. Mention is



"When a customer asks for 'half a dozen lamps' we give her a six-lamp package, ready wrapped."—L. Levy, San Francisco.

made to bring out the following facts: I have tried my best to get general business from all over the city, and have come to the conclusion that we must look for the best retail business within a radius of perhaps fifteen blocks of the store, and not expect to get any volume from elsewhere. While in 1916 I sold more than \$20,000 worth of goods at retail, I find that I am increasing business by concentrating my advertising and efforts to the immediate neighborhood surrounding the store.

PROMPT REPAIRS PROVE TO BE PROFITABLE

"My neighborhood has brought me considerable business in the way of repairing appliances, and I would like to bring out the fact that this is one part of the business that we can hold on to because we can handle it better than the hardware man, grocer or druggist. This part of the business, however, requires prompt service. It means that when a woman's iron is out of order, it must be repaired at once, and not left for two days before she can have the use of it. The same with the percolator, toaster, vacuum cleaner, etc. I am in a position to promise the return of the article within a reasonably short time, and where there is likely to be delay I

make it a practice to loan the lady another iron or appliance.

TIME DEVOTED TO NEIGHBORHOOD INTERESTS IS GOOD INVESTMENT

"In furthering my business, I have taken considerable interest in an improvement club that is operating in my neighborhood, being one of the executive committee. I have also served on most of the other committees that have been appointed during the past year, and while this all takes time, it certainly pays to get acquainted with your electrical store neighbor."

SELECTING A "BUSINESS LOCATION"—NOT SIMPLY A "STORE"

Mr. Gribble of the Western Gas & Electric Improvement Company, Chicago, believes that profiting by mistakes is one of the surest ways to get ahead. "It is too often the case," he said, in speaking of the mistakes of the inexperienced retail man, "that the beginner looks for a 'store' without regard to business location. Maybe he meets a representative of one of the other lines of the industry, who gladly helps him to find a store, seeing a possible chance to ultimately sell some goods and get another account on the books. He should select a business location—a location that takes advantage of traffic, trade, transportation and public attraction features in the city or section of the city where the proposed store is to be located. How often is the reverse the case. We see a store opened, the owner hangs



"After serving on most of the committees of the local Improvement Club in my neighborhood, I find that time spent in getting acquainted with people in my community is a paying investment."

out his sign—"Electrical Contractor and Dealer"—and from its location and appearance the contracting feature apparently is the uppermost in his mind. I recall at the moment a store that has recently been opened. It is at least ten minutes from the business part of its town; the neighborhood is fairly built up with private houses, most of

which are owned by the occupants. These homes are fully equipped for electricity. Directly opposite the store, which stands on a corner, is a church, the only opportunity of getting any business from which would possibly be on a Sunday—the day our electrical merchant is closed up. The other corners are vacant lots. There being no other stores handling lines appealing to women in the vicinity, naturally a woman in this district desiring to shop takes the car or her machine and goes closer to the shopping district, giving our electrical man the 'go-by.'



"Advise the public through advertising to buy electrical goods from electrical dealers, and so get the service to which their purchases entitle them," declares Mr. Gribble.

ELECTRICAL BUSINESS FOR THE ELECTRICAL TRADE

"It appears to me that one of the most important steps for the good of the retail business will be the formation of some sort of publicity campaign and the creation of a state fund to properly advertise electrical devices and also advise the public through advertising to buy their electrical goods from electrical dealers and get the service that they are entitled to when they purchase these goods. I would also advise every electrical man who is doing any advertising whatever, to incorporate into each advertisement the phrase, 'Buy your electrical goods from an electrical dealer.' I would suggest that this slogan be printed on our business letterheads, as I believe great good can come through this medium."

NEW OFFICERS ELECTED

The following officers were elected for the coming year: President, H. C. Reid; executive committee, M. A. De Lew, San Francisco; G. J. Bennett, San Francisco; A. Gensler, Oakland; Robert Oiler, Oakland; G. C. Turner, Sacramento; F. J. Somers, San Jose; M. E. Ryan, San Mateo; R. Gould, Stockton; G. E. Arbogast, Los Angeles; H. H. Courtwright, Fresno; Walter Cox, Santa Cruz.

LIGHTING THE AVERAGE HOUSE

Some General Points to Be Considered by the Contractor or Lighting Salesman Who Is Called on to Make the Illumination Layout of an Old-Style Dwelling to Be Equipped with Electric Service

By A. L. POWELL

ELECTRICITY is one of the most useful agents in the home, yet how seldom are its possibilities there fully realized. The comfort, convenience and safety of electric lighting are supreme. The flexibility of electric applications is remarkable. Modern equipment is both artistic and hygienic. But in spite of all these self-evident facts, few residences are so equipped as to take full advantage of electric service.

THE CONTRACTOR IN THE RÔLE OF ILLUMINATING ENGINEER

Since the electrical contractor acts as electrical engineer, illuminating engineer, architect and general adviser on most residence work, it is important that he be thoroughly posted on the varied applications of modern equipment, and fully realize what pleasing, comfortable effects can be obtained at comparatively little cost.

Yet through lack of knowledge or false economy how often do we see fixtures designed for use with low-candlepower lamps, fitted with high-efficiency illuminants? Again, the

glassware employed often gives neither diffusion nor redirection of light, and has no decorative value. There seems to be no excuse for such practices, but they continue.

MORE WALL SWITCHES AND BASEBOARD OUTLETS NEEDED

Another feature which is quite noticeable in the modern home is the lack of wall switches and baseboard outlets. These are extremely important elements in the electrical system. The owner does not realize the great necessity for them, and the electrical contractor should impress it upon him. Many do this but others, fearing competition, actually tell the customer that he can save money by omitting them. This is a very short-sighted policy.

Without wall switches electricity loses one of its great conveniences, and one has, of course, to grope around in the dark for the key or chain on the socket. If the switch is not at hand by the entrance doorway, he has either to light a match or risk a fall over some misplaced article of furniture. The contractor should insist, therefore, on wall switches where he believes they are necessary.

Remote control was not so absolutely essential with the old-style fixture with its sockets within reach, but now with indirect units, justly popular, it is rather difficult to control the light at the fixture, unless one employs an obvious makeshift in the form of a pendant switch.

ARTISTIC LIGHTING UNITS THE THIRD REQUIREMENT

Residence lighting is not a complex problem if one bears in mind a few important points—artistic lighting units, sufficient wall switches, and plenty of baseboard outlets.

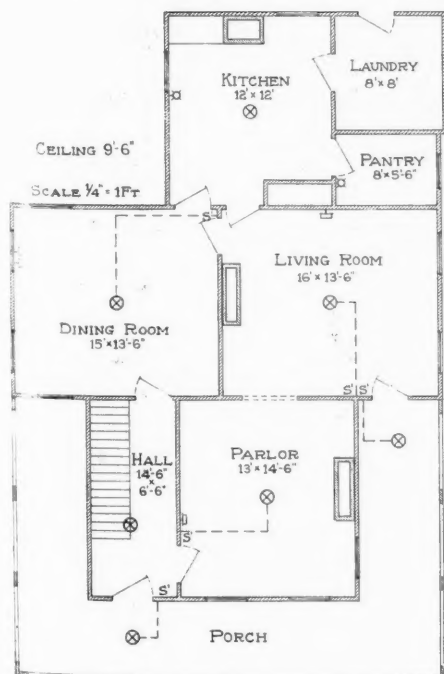
To illustrate this, let us examine a typical medium-priced home which was recently equipped for electric service. The house was built about twenty-five years ago, but through inertia or the fear of "tearing up" to install the

wiring, the occupants had worried along using kerosene as an illuminant. Finally the inconvenience of always filling, trimming and cleaning lamps exhausted the patience of the owner. As a result, up-to-date electrical equipment is now in use.

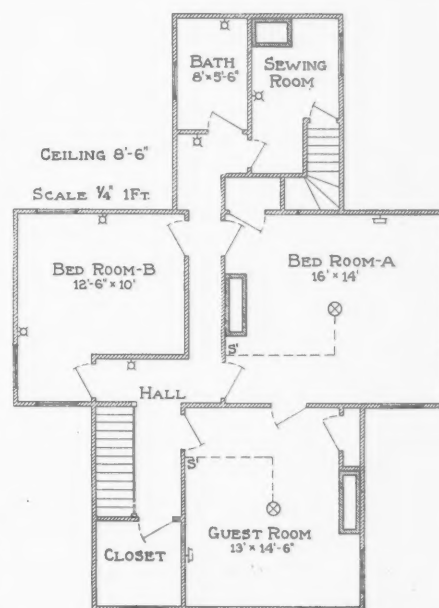
Concealed knob-and-tube wiring was installed. This did not present many difficulties, for there were no double floors on either the second floor or the attic. In addition to the outlets shown in the sketch, lighting was provided in both the attic and cellar with control switches at the foot and head of the stairs, lighting respectively those parts of the house.

A brief description of the more important rooms follows:

Parlor.—This room (Fig. 1) is lighted from a central outlet controlled by a flush wall switch near the entrance door. A 16-in. semi-indirect bowl is suspended 7 ft. above the floor by a three-chain fixture. The bowl is of light density opal, etched with an attractive conventional design. As the room finish is very light, both walls and ceiling being cream, two 40-watt Mazda lamps furnish adequate illumination. Provision is made for one baseboard outlet, to which a portable



Plan of first floor, showing layout of wiring. Ceiling outlets are indicated by circles, and small rectangles show wall receptacles



Plan of second floor. In addition to the outlets shown, lighting was provided for both attic and cellar, with stair control switches



1. A corner of the parlor, lighted by a central semi-indirect unit, and an etched and decorated table lamp.

2. This living room receives general illumination from the semi-indirect equipment while a high intensity is provided at the sewing machine by an adjustable local lamp.

3. Dining room. Soft well diffused tinted light for this important room is supplied by five Mazda lamps in a candlestick-type fixture.

4. Bedroom. Inexpensive, yet neat equipment, is far better than fixtures of elaborate design which provide no diffusion of the light.

5. Bedroom. Use discretion in selecting fixtures and choose those which are best suited. Here the general illumination is supplemented by a simple reading lamp over the bed.



table lamp in excellent taste is connected. The table lamp, like any other lighting unit, should never be garish, but rather of simple, artistic lines. The cheerfulness brought to the home by well-applied portable lamps is apparently underestimated, for they are not used in the number warranted by their good qualities.

Hall.—One outlet, located as indicated, equipped with a chain fixture and a rather dense stalactite ball with an etched decoration and a 25-watt Mazda lamp, was all that was deemed necessary here.

Living Room.—A semi-indirect unit of the same general type as used in the parlor, but of different contour and etching, is the principal lighting unit for the living room (Fig. 2). This, also, is controlled by a wall switch near the entrance door. The baseboard outlet in this room, at the particular time the picture was obtained, was utilized to connect a portable lamp consisting of a flexible arm, a low-candlepower lamp and a steel reflector. This is placed on a sewing machine. It would be ridiculous to attempt to furnish sufficient general illumination for sewing on dark goods. Such high-intensity general lighting would not be comfortable for other occupants of the room. Here again we have the baseboard outlet serving its purpose. The lighting fixture should not be a place to attach a portable lamp. Its object is to supply adequate illumination of the proper character in the most effective and artistic manner. It should not act as a switchboard or cut-out cabinet.

Dining Room.—The ideal distribution of light for the dining room (Fig. 3) makes the table the most brightly lighted part of the room, concentrating the attention around the festive board. A low intensity of illumination suffices for the rest of the room. The old-style dome gave this distribution of light, but as ordinarily installed was quite glaring, and some designs were positively hideous. In the dining room, more than in any other part of the home, the candlestick motif has been retained by the great majority of us, yet candles on the table do not furnish sufficient illumination for practical purposes. In this instance a cast metal fixture with five imitation candlesticks carries out the decorative idea. Fifteen-watt round bulb, all-frosted Mazda lamps are equipped with buff-colored shades with

a crocheted covering. An inner lining of white tends to direct the light on the table, and, as the shades are quite dense, but little light is transmitted to the sides. The effect is extremely pleasing. A two-gang baseboard outlet will be noted at the rear of the room. This is used for connecting heating devices, and eliminates unsightly cords dropping from the center fixtures. If baseboard outlets are put in with the first installation, then much future trouble of ripping up floors is avoided. The higher first cost is unquestionably well warranted.

Kitchen.—The kitchen is lighted from a center fixture consisting of a simple stem with a prismatic glass reflector which gives an extensive distribution with the 40-watt lamp used. This is controlled by a pull-chain socket. A side-wall outlet enables one to connect the electric iron or other devices and still have the general illumination.

Pantry.—In the pantry there are a simple brass bracket with a small opalescent glass shade and a low-candlepower lamp.

Two inexpensive inclosing units are installed on the porch controlled individually by wall switches near the doorways.

SECOND FLOOR

Guest Room.—At a center outlet controlled by a wall switch a harp-type fixture in Colonial silver finish supports a semi-indirect unit. This is of blown opal 10 in. in diameter and 6 in. deep, painted with a delicate tracery of rosebuds and foliage. A 40-watt clear Mazda lamp was found to furnish adequate general illumination. The room is quite attractively decorated with a white ceiling and wallpaper which has dainty pink flowers in its design. This furnishes an example of making the lighting unit part of the room—not merely an object stuck up with its only excuse for existence that of holding the lamp. The baseboard outlet supplies current for a small portable with an etched

and tinted shade. A 15-watt lamp in this case furnishes sufficient illumination for one to lie in bed and read.

First Bedroom.—The same general scheme is used for lighting this room (Fig. 5), but a slightly different type of fixture is employed. A three-chain band type hanger in old brass finish carries a 14-in. opalescent hemispherical-shaped dish. This is also decorated with a border of buff and a band of flowers and foliage; another example of harmony with the room decorations for the ceiling of the room is cream and the walls buff with a simple border of red and green in conventional design. The fixture contains two sockets, both of which are fitted with 25-watt Mazda lamps. A portable with the same size lamp and a spun-metal shade is used when one desires to read in bed. The fixture of this is so constructed that it sticks to a smooth surface by suction. The room is comfortable and pleasing.

Second Bedroom.—This room (Fig. 4) is lighted from bracket units of simple design. Etched, opalescent glass shades, 7 in. in diameter, 5 in. deep are used pointing upward. They are controlled by pull-chain sockets. Elaborate fixtures are not necessary in artistic lighting; some of the plainest equipment is most charming, and cost is not a governing factor; inexpensive material is often very well suited.

Upstairs Hall, Bath and Sewing Rooms.—In these rooms bracket outlets are provided. The Mazda lamps are controlled by pull-chain sockets. Various styles of etched, blown opalescent glass shades are used. These, of course, have no redirective properties, but give excellent diffusion to the light as well as having a certain decorative value.

Instead of a spot of light here and there from a smelling, sometimes smoking, oil or gas flame or mantle, the whole house can now be filled with soft, well-diffused light. When one goes to bed he runs no risk of stumbling on the stairs and setting fire to the house from an overturned lamp, for the hall can be continuously illuminated at a very low cost by a low-wattage lamp in the bracket at the head of the stairs.

A house owner can point with pride to an installation of this character. It is a source of comfort and the advantages of electricity grow on one daily.

Labor and Material Plus 50 per Cent

To cover 23 per cent overhead and have a profit of 10 per cent, your selling price must equal cost of labor and material, plus 50 per cent.

"Master Merchandising Details—and Sell Quality Goods!"

A DEALER VERSATILE ENOUGH to preside at noon as president of his city's Rotary Club, after having done Mr. Jones' washing electrically earlier in the day, tells what he thinks are the fundamentals of electrical merchandising. He lives in an average Middle West city. His advice is: (1) Know definitely how to sell goods yourself, (2) move your store to Main Street, (3) sell quality goods, and (4) sell service with them.

By L. C. SPAKE

"SUCCESS," said A. L. Swanson, an Evansville (Ind.) electrical dealer, "has come to my business because I have taken the time and trouble to absolutely master details, and because I have consistently sold quality goods. That tells the whole story tersely. In tackling any sales or other business proposition, I first learn how to do the actual work myself. If no one can tell me how, I try to find out for myself. Then, when I have the knowledge of *how to do it* I can safely trust the job to any subordinate I train.

"Let me illustrate. I wanted to work up a business in washing machines. I didn't know how. I could not find any one who could tell me definitely how a dealer could do this. So I went after it myself. To get a prospect list I tried circularizing the lighting company's customers. I got only four replies to my 5000 letters. So that plan was no good.

"Then I thought I'd try putting out a salesman. In the selection of this man I believe I showed good judgment. He was a man past middle age. He had gray whiskers. He was neat in appearance. His manners were sufficiently genteel. In short, he was the kind of a man that would command the respect of a housewife when she found him at the door.

"I sent this man out to locate prospects. When he began a house-to-house canvass we discovered that while he could interest seven out of ten



"In tackling any sales or other proposition, I first learn how to do the actual work myself. Then when I have the knowledge of how to do it, I can safely trust the job to any subordinate I train."—A. L. Swanson.

women in a washer, he could not bring any of them to the point of permitting a demonstration in their own homes. So we began to look for the reason for this. We found that the average wife wanted to see her husband about it; hubby, never having seen our sales-

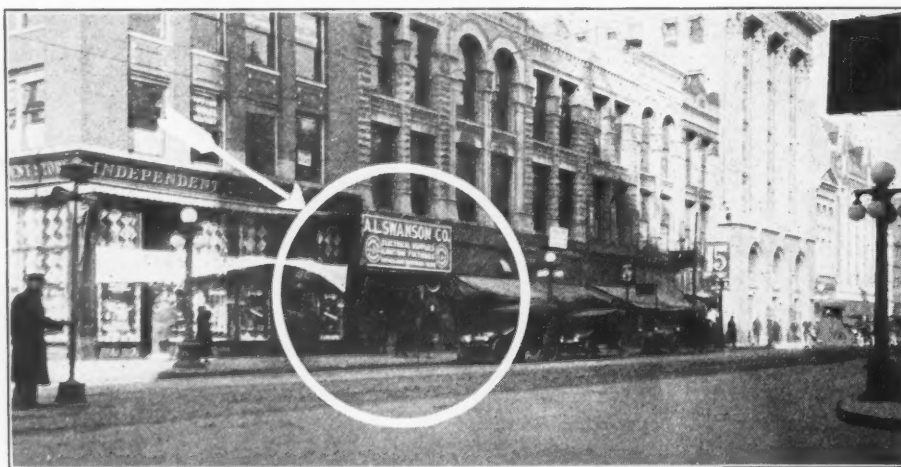
man, was suspicious of house-to-house solicitors in general, and there was where the deal fell through.

"To correct this difficulty we worked out a new program. After the solicitor had interested the woman in our proposition he went to see her husband about it the same day. He would tell the husband some facts about the washer he had not told the wife. He would tell the husband facts about his own household expenses. Moreover, he would explain the washer purchase to the man as a business proposition—a proposition that would save the family actual dollars and cents, if bought either on our easy-payment plan or for cash. The man could understand this sort of talk and appreciate it. He could also understand that a demonstration could be made without any obligation on his part. The result of this call on hubby, therefore, was frequently an appointment to meet the husband and wife together for a demonstration or an evening appointment to meet the husband and wife together to talk the proposition over.

"The real advantage of the plan was that it prevented the husband from dismissing the proposition without consideration when his wife, who was probably a half-hearted salesman, put it up to him. It gave the family something to talk about, because each member had heard from the salesman a separate but correlated set of washing-machine facts. By this plan we helped the wife sell the washer to her husband, a bit of help she greatly needed.

"It was during the demonstration," continued Mr. Swanson, "that I, as a well-known merchant, played a trump. I would go out and do the washing myself, and believe me that produced an effect. The lady of the house would tell her neighbor: 'Why, what do you think! Mr. Swanson, the president of the Rotary Club, did my washing himself this morning! We got the clothes hung up before 8 o'clock!'

"Her statement would travel with



Right next door to a 10-cent store stands the new home of A. L. Swanson & Company. It occupies a valuable site there on the main street of the city because Mr. Swanson believes good store location is a part of the service he owes his customers

The contract form used in the sale of washing machines where collection of partial payments is to be undertaken by a bank

because folks who buy electrical goods over the counter never think of the electrical dealer whose store is on a side street. They think only of the big department store on Main Street. So I came to the conclusion that a good store location is a part of a firm's service to its customers. On Dec. 1 of last year I therefore moved to the main street of Evansville, into the heart of the business district, right alongside a 10-cent store, and with a rent double what I paid before. From this location, where I can give every service rendered by my bigger competitors, I am going to continue to sell quality goods, and the trouble people have with inferior electrical devices will eventually drive customers to me. The age of uncertainty in electrical goods is past. It is now possible to look a man in the face and tell him

how many years any electrical device will last. Electrical merchandising should be brought to the same plane.

"The matter of price should not be uppermost in the electrical merchant's mind. I frequently tell the head of my contracting department that I would rather have his bid be \$75 high on a job than only \$2 high. If the bid is \$75 high, that is evidence that we figured on the use of material of higher quality. If it is only \$2 high, it is apparent that there is little choice between the quality of our job and that of the competitor, and the low bidder ought to get it. So the low price is not the main consideration in the contracting end of the business.

"The same thing is true in the merchandising division. In my eleven years in business in Evansville I have sold more \$5 irons than \$3 irons, and

more \$65 vacuum cleaners than \$25 cleaners. It is true that we carry both kinds, but when a prospect comes into the store and asks for an iron or a cleaner, we sell the better one if we can, because we honestly know it is worth the additional money. We have almost educated the people of the city to the point where they now ask for the better classes of goods.

"To sum up the whole situation, I should say, therefore, that the dealer who will study details, and will himself learn how to sell goods, who will sell goods of quality, and sell service with them, who will take the broad view that a good store location is a part of service to customers—there is the dealer who will be in the electrical merchandising business with both feet on the ground, five, ten, or twenty years hence."

GENERAL CONTRACTOR VS. SUB-CONTRACTOR

Why It Pays to Have Electrical Work Handled by Electrical Contractor's Skilled Organization. Abuses to Which Sub-Contractors Are Subject. Withholding of Pay Properly Due. How Bids Are "Shopped." The "Back-Charge" Evil

By F. W. LORD

President Lord Electric Company, New York City

FORMERLY the generally accepted idea of a "general contractor" was a contractor who executed all parts of a building operation with his own force of masons, carpenters and other skilled and unskilled workmen.

Nowadays, however, the term "general contractor" almost invariably means one who assumes an entire contract, but who sublets the various parts to specialists or sub-contractors. Sometimes such a general contractor will use his own men to perform the mason or carpenter work; but as a rule he sublets everything.

The wisdom of subletting is obvious, as any modern building operation involves a tremendous amount of detail, and it is evident that a group of sub-contractors having trained administrative forces can work better and can more efficiently obtain and install the special materials required than can any single organization. This is apparent when it is realized that in the plumbing, heating, electric work, etc., in each instance hundreds of articles have to be procured and installed each one particularly speci-

fied or adapted for the work being done.

To know where to obtain to the best advantage, both as to time and price, all of the various fittings and devices—each one often of special kind, size, shape, color and manufacture—requires an intimate knowledge and experience which one cannot expect to find in the office of a general contractor. In addition to this complexity of material requirements there must also be considered the question of skilled workmen. Most certainly the sub-contractor, constantly doing work of his special kind, will have better men and will do better work than a general contractor who only occasionally employs electricians, steamfitters, etc.

This phase of the contracting business is here particularly mentioned, and to some degree elaborated upon, because some general contractors, principally those who do only percentage work, attempt to justify their policy of not subletting anything by claiming to save the profits of the sub-contractor. But instead of making a saving it may be safely said that

such a course invariably adds to the cost, and also results in a poorer quality of work. The best proof of this statement is the fact that special departments of general contractors' organizations are seldom successful competitors when faced by concerns who devote all of their time and ability to special branches of the business.

It might be suggested that the ethics of this situation are automatically guarded by the economics involved, but this is not always so, particularly where the general contractor is interested in the financing of the operation. In such cases the general contractor is supreme and no opportunity ever arises to disprove his statements, because no two buildings are alike, and consequently his excessive costs cannot be demonstrated by comparisons.

Another abuse, for which, however, the sub-contractor is partly to blame because he permits it, is the so-called shopping of bids. The practice is so well known and is so almost universally followed that it may appear trite even to mention it; but as a remedy will be proposed, it is thought advis-

able to illustrate the abominable custom by an example so that those less intimate with the ins and outs of contracting may fully understand.

Let us say that the architect has asked several contractors to tender proposals for the complete structure, the specifications and plans detailing and describing what is to be done under the various headings. Each of the general contractors proceeds to gather in bids on the various parts of the work by sending out scores of printed postal cards, each of which asks for "Your price on your line of work" on the building mentioned. These promiscuous invitations to estimate are often sent out absolutely without any discernment as to the fitness of the bidder, and often ten or fifteen proposals are received, when not more than three or four of the firms so bidding are really competent to carry out the contract. The general contractor then tabulates the bids and uses the lowest one as the basis of his estimate.

When the general contract is awarded the next step is in order. Three or four of the sub-contractors who have put in the lowest prices are given the "opportunity" of revising their figures, with the result that they all, including the low man, reduce their bids.

HOW EVEN THE LOW MAN IS TRIMMED

The general contractor then calls in the lowest bidder, or if he is notably poor or incompetent, one of the better contractors nearly as low in price, and addresses him substantially as follows:

"Mr. Smith, it is some time since you have done work for this office; the architect thinks very well of you, and we would like to give you the contract, but your firm is considerably higher than other responsible bidders. If you can make your price lower the contract is yours."

If Mr. Smith is not very experienced he will assume that his estimate must be high, inasmuch as he has been told that his competitors are so much lower, and the offer is accepted. Even though he may doubt the veracity of the general contractor he will think twice before refusing, partly to avoid offending and partly because there is always a chance that the contract may be profitable or lead to other work.

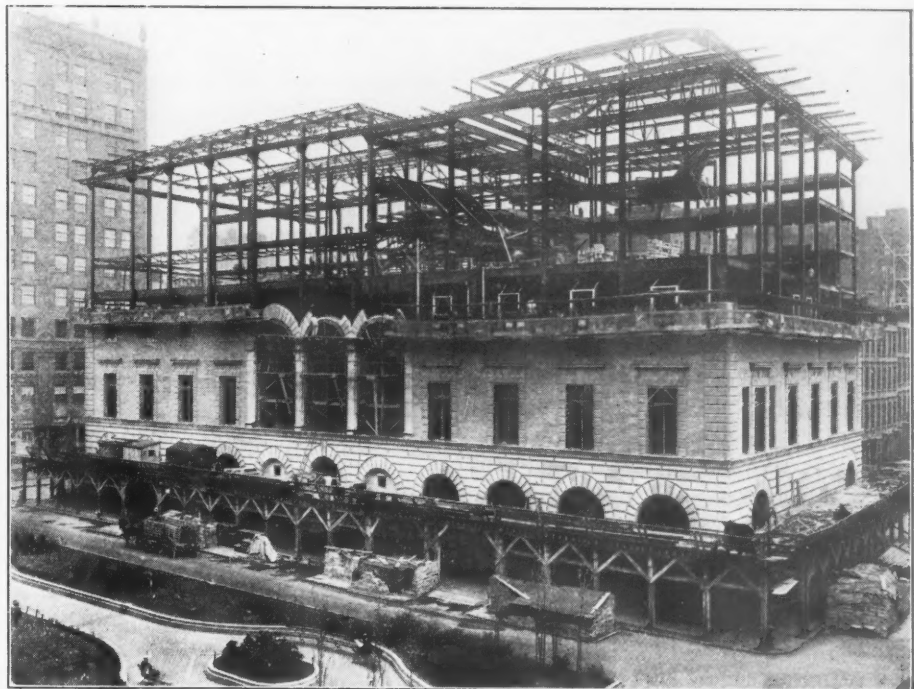
In all fairness it should be acknowledged that Mr. Smith often follows

this bad example when it comes to the purchasing of his supplies and in a similar manner plays the dealers against each other; but the chances are he would not do this if he had not been forced into it.

The practice is, of course, indefensible, its only excuse being that it is so general. To correct it is more than any one person or concern can do, but any association of sub-contractors or dealers could stop it in any instance overnight if they would co-operate.

The sub-contractor suffers other abuses at the hands of the unscrupulous general contractor, some of which

tractor, in a building which he was remodeling, had a newly painted room so damaged by the carelessness of an unknown workman that it had to be repainted. The general contractor, not knowing to whom to send the bill, sent it to thirteen of the sub-contractors at work in the building, stating in each case that it had been reported that one of their men had caused the damage. Eight of these sub-contractors paid the bill rather than have a dispute with the contractor, who had much desirable work to give out. This, of course, is an extreme case, but it illustrates the ad-



"Any modern building operation involves a tremendous amount of detail, and it is apparent that a group of sub-contractors having trained administrative forces can work better and can more efficiently obtain and install the special materials required, than can any single organization.

"This is especially evident when it is realized that in the plumbing, heating, electrical work, etc., there have to be secured and installed hundreds of articles, each particularly specified or adapted for the work being done."

Photograph shows new Racquet and Tennis Club, New York City. McKim, Mead & White, architects; Marc Elditz & Son, builders; Lord Electric Company, electrical contractors.

are as iniquitous as blackmail. For instance, the sub-contractor is "back-charged" with all sorts of items, such as part of the cost of the watchmen, telephone, scaffolding, cleaning up and other expenses, regardless of any real liability involved. If these back-charges were moderate and divided in proportion they might be more easily justified; but it is general knowledge that even when they are included in the work of the general contractor he charges the sub-contractor for them, in some instances not only once but several times.

On one occasion a general con-

vantages which are frequently being taken of the sub-contractor.

It is evident, therefore, that it is beyond the power of any individual to bring about reforms where such conditions exist. Even a good many individuals would be unable to accomplish much unless they could voice their protest together.

All such practices would cease if they could be made generally known—for it is a business fact as well as a moral maxim that no one in the wrong can bear the pressure of adverse public opinion and continue in successful business.

LIGHTING FACTS

The Man Who Sells Illumination Ought to Know

By C. E. CLEWELL

Assistant Professor of Electrical Engineering University of Pennsylvania

OCCASIONALLY one runs across a dealer selling lamps or fixtures to whose mind the transfer of such lamps and auxiliaries to a customer has little more of significance than the sale of so much merchandise. The part he is playing in a vast industry is perhaps imperfectly appreciated, nor may he feel an enthusiastic responsibility concerning the influence which he is privileged to bring to bear on the kind of service each customer is to enjoy from the lamps he has been instrumental in selling.

LIGHTING AS A SALES FEATURE

Now, it is true that for many years lamps were sold and distributed with little or no regard to their applications, but the time has arrived when they can and most certainly should be sold, not on the basis of their excellence as producers of light only but also on a basis of the quality and quantity of the lighting effect which will accompany their use as recommended either by the salesman or by his engineering department. Each salesman, therefore, by virtue of the age in which he lives and the present state of the lighting art, owes it to his customers to treat light as a commodity which is salable in a manner similar to the sale of the lamps that are to produce the effect. He should, then, approach the problem as a sale of light as well as of lamps.

SELLING LIGHT, NOT MERELY LAMPS AND FIXTURES

Not only is this an advisable attitude from the viewpoint of the modern lighting man, but it is often a most necessary step in the sale of equipment. A well-known illuminating engineer once made the statement that while waiting for a car one evening he saw a store across the street lighted with bare lamps. He walked over and talked casually with the proprietor, pointing out the evils and inefficiency of the scheme, and in a few minutes had the man so much interested that he forthwith wanted information as

An easy-chair discussion of fundamental principles of good lighting, and some advice on important points which the electrical contractor and central-station salesman too often overlook

to how he might go about the purchase of improved equipment. This case is cited merely to show how readily new business may sometimes be approached on a basis of pure engineering, the sale being a natural sequence to the conviction that there is something better with which to replace an old and an inferior arrangement. To the commercial lighting man, then, partly because of his intimate relation with the consumer and the obligations thus imposed, and partly also because of the many advantages to himself in his work, there is a peculiar interest and importance in those features of illumination, which it is the purpose here to point out as specially valuable to the average salesman of lighting appliances.

THE SALESMAN AS AN EXPERT AND VICE VERSA

In many places, even to-day many lighting systems date back to a time when the scientific use of lamps was generally unthought of or when the types of lamps suitable for this particular location were either meager or entirely lacking. As far as the present and the future are concerned, however, no lamp salesman can afford to take other than an active interest in the various developments in engineering methods of lighting, which practically demand that all lamps installed in the future shall be applied in a scientific manner to the purposes for which they are purchased.

It may be quite true that very few salesmen are in a position to class themselves as experts in any one of the many branches of the lighting field, but the salesman's work so often

carries him into places where the lamps are used, that, if he will, he may treat every such case as an opportunity for careful inspection of the lighting conditions, obtaining thereby useful data on actual practice. In a way, therefore, he may actually be in a position to observe practice better than many designers of lighting systems, some of whom must depend largely on blueprints and written information.

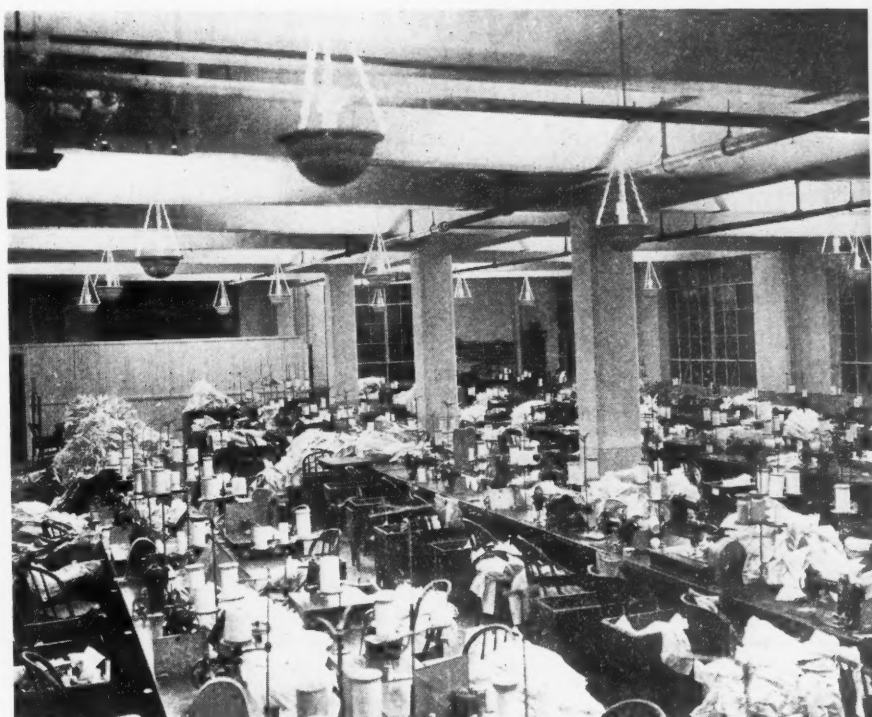
BREADTH OF THE FIELD

The illuminating engineer is required to know and the lamp or lighting salesman will find it to his advantage to be posted on the physical characteristics of the electric lamps now on the market, together with their relative first costs and their operating and maintenance costs, and their relative adaptability to various conditions, classes of work and types of circuits. Under the latter head he is concerned with the effect of voltage, frequency and voltage regulation on the operation of the lamps.

It is very desirable that he should have a working knowledge of various methods of wiring, special schemes of mounting and supporting lamps and on the standard systems of distribution. In the industries he will find that the economical aspects of good lighting to production and to efficient management often determine a sale, and the ability to make general recommendations of size, spacing and mounting heights when making an inspection, often renders his arguments more convincing than any amount of generalized information could be.

PRACTICAL CONDITIONS TO BE WATCHED AND PROVIDED FOR

He will further find it a convenience to be in a position to recommend approximate methods of switch control, to devise, on the ground, intelligent schemes for mounting the switches on columns or otherwise, to advise on the illumination intensities



THE man who sells lighting must realize that what the customer wants to buy is not merely lamps and fixtures, but good working illumination for his factory, shop or office.

In walking through a space to be lighted, the alert salesman will also carefully study dark surfaces, and the effect of ceiling and wall conditions, and the presence of belts which will materially affect his conclusions.

And more than furnishing even mere good lighting, the contractor or salesman should be ready with suggestions for convenient switch control and switch mountings, and with advice on the illumination intensities required for various classes of work.

required for various classes of work and uses, and to give rough figures on the costs of wiring and installation. In walking through a space to be lighted he will do well to consider the effect of dark surfaces, and ceiling and wall conditions, in their effect on the resulting illumination, and the presence of frequent belts in the factory will materially affect his conclusions.

It is further likely that the salesman may often be called upon in such interviews to cope with adverse circumstances such as excessively high ceilings or peculiarities in the building construction, making it difficult to mount lamps where they otherwise should logically be placed. In his work, he may also be looked to for a preliminary statement of the probable transformer capacity for a new lighting system, and such details as wire sizes for new circuits, types of carbons for arc lamps, types of reflectors and holders for given sizes and spacing of lamps, the most effective manner to handle maintenance problems, and similar items.

This brief catalog of some of the

things which confront the engineer and which the salesman can well afford to master will serve to indicate that the whole problem of illumination is not a simple line of work, but rather that it is almost as comprehensive as the engineer cares to make it. It may appear, therefore, that if the work is properly appreciated and is approached with a view to the attainment of success in keeping with the opportunities, it includes a complex and sometimes a most difficult problem for which to produce a definite answer.

A FEW OF THE MANY PRINCIPLES INVOLVED

The foregoing items give an idea that the field in its broader definition is one of great and varied possibilities and yet, probably, one of the most significant points connected with this same field is the fact that it is as yet relatively untouched. This statement is made without prejudice to the many splendid efforts which have been made thus far by some of the public utility companies and others, and is, we be-

lieve, fully justified by the gross ignorance and neglect on every hand concerning the fundamental principles of illumination in its practical phases. It is, therefore, appropriate in a discussion of this kind to look briefly at a few of the numerous principles which govern this practice.

Consider first the question of intensity of illumination. How many of your customers know anything about the intensity of illumination and how it is measured and calculated; how much intensity is needed for the different classes of work and uses; what sizes of illuminants should be used over such common cases as the office desk, in the shop, the foundry or in the drafting rooms. Many people confuse excellence of lighting with a large quantity of light and yet excessive intensity is a cause of pain to the eye, and may actually be as distressing in this respect as a light too low in intensity for the use to which it is put.

WHEN UNIFORMITY IS WANTED, AND WHEN NOT

Next, we may turn to the question of uniformity. Is uniformity of the illumination over the entire space to be lighted a condition to be sought? In some cases, yes; in others, the conditions make it desirable to have relief spaces throughout the lighted area so as to reduce eye fatigue. In many cases, however, the ways and means for securing a sensible uniformity over the entire floor space become of exceptional importance and in such cases the distribution characteristics of the available lamps and the reflectors to be used in conjunction with the same are significant factors.

One of the most startling facts in lighting work is the carelessness so generally observed in suitably protecting the eyes from glare which is so much more noticeable in modern lamps than in older equipment. Not only are these very bright rays from bare, or only partially protected lamps, annoying, but their more or less permanently injurious effects on the eye are now clearly recognized by leading oculists in this country. From this standpoint, every lamp salesman should look upon it as an opportunity to see that suitable attention is devoted to the use of reflecting glassware or equivalent not only as a factor in the effectiveness of the systems he deals with, but as a protection and safeguard for the eyesight of his customers.

HOW TO FINANCE INSTALLMENT PAYMENTS

Cleveland Dealer Works Out Practical Partial-Payment System in Co-operation with Local Loan Bank

THE selling of such household utilities as vacuum sweepers and electric washing machines makes an installment proposition almost necessary. One of the causes of friction between central stations and electric dealers lies in the fact that the former, having ample capital, are able to offer much more attractive "terms" to the public and consequently are able virtually to control a considerable proportion of the business even when their selling prices and the dealer's are equal.

This is a plain and simple account of how a small dealer in Cleveland, Ohio, evolved a practical system whereby a local bank carries these deferred payment accounts. The plan therefore puts the dealer on an equality with all competitors, and permits him to use all of his capital and energy in the direction of making more sales.

"TWO-FIFTY DOWN AND A DOLLAR A WEEK"

O. K. Herron, manager of the Herron Electric Company, believes that the secret of success in appliance merchandising is to offer to sell the housewife on a very small down payment and even smaller weekly installments. On a \$32.50 vacuum sweeper, for example, he believes \$2.50 down and a dollar a week is the schedule which will win the most orders. The basis of this belief is not that he desires to minimize his price, but that he wishes to sell the housewife on such terms that she can meet the pay-

If YOU want to put on an installment-payment offer like this one, **SHOW THIS ARTICLE TO YOUR BANKER AND LET IT TELL HIM ITS OWN STORY.** Ask him with what modifications of the scheme here outlined he would be willing to help YOU put on an "easy-payment" electric-washer or vacuum-cleaner campaign. There's profit in it for both of you.

ments out of her household allowance. Many a woman will skimp herself and her table to pay for a labor-saving appliance if she can do it on easy terms out of her own "pin money"; she will hesitate or refuse to consider buying on terms which require her to beg the price from "hubby." We may not agree with the ethics involved in this attitude, but we must recognize—and profit by—the fact.

Two years ago selling vacuum sweepers at a dollar a week was impossible to the Herron Electric Company. The company did not have the capital necessary to swing such a proposition. As a matter of fact, selling on these terms means the tying up of a considerable sum, for if a firm is selling five machines a day on this basis it will have 900 machines out

before the first sweeper is entirely paid for. This means a minimum of \$10,000 in actual cash tied up in installment accounts. Not many electrical dealers have so much money available.

WHAT THE BANK IS IN BUSINESS FOR

Herron, however, knows what a bank is in business for—and I might say, parenthetically, that very few of us know that much. A bank is a dealer in money. Money to a banker is like flour to a grocer or nails to a hardwareman. It is simply merchandise—something which he buys as cheaply as he can and sells for as much as circumstances and the law will allow. A bank *wants* to "sell" its money; the only difficulty is that it wants to be jolly sure that it secures payment for it. If you go to a bank with a proposition that absolutely insures the repayment of money, you can have everything in the vaults.

Herron proceeded to figure out a proposition that the bank would accept—and incidentally he went to the kind of bank that would accept his kind of proposition. Here was his plan:

He agreed that he would sell the machines for \$2.50 cash and take the customer's note for \$30, this note being payable in weekly installments of \$1 per week. The customer was required to give two substantial references on the note, to state whether or not he (or she) owned real estate and where, and to tell where employed. This gave a pretty strong hold upon the customer, for in verifying the references it was always possible to decide whether or not the customer was trustworthy.

A FORM OF INDORSEMENT THAT IS BINDING

After this note was secured from the customer, it was turned over to the bank with the following indorsement: "For a valuable consideration, the receipt of which is hereby acknowledged, we hereby sell and assign the within note and conditional sale agreement to the — Bank, and we

HERRON ELECTRIC CO.		No. 55		CLEVELAND, OHIO.....August 5.....1917..	
30 EUCLID ARCADE					
PLEASE DELIVER TO ME.....One vacuum cleaner.....					
No. 88754	for which I agree to pay you.....Thirty-two and one-half Dollars, payable as follows \$ 2.50.....				
herewith, the balance in weekly payments of one dollar each, the first payment to be due on or before Saturday, August 11					
1917., and the succeeding payments to be due on or before Saturday of each week thereafter until the entire amount is paid.					
Deferred payments to be made at The Morris Plan Bank, Rockwell Avenue and East Sixth Street, Cleveland, Ohio.					
Property to remain in your name until fully paid for. Upon failure to pay any installment, the whole unpaid balance shall at your option, or the option of your assignees, become due and payable. This agreement applies to any other vacuum cleaner that may be sent in exchange for that originally delivered. In the event that the weekly installments are not paid promptly each week on or before the day above named, five cents for each dollar payable shall be charged each week or part thereof that said payments are in default as stipulated compensation for services performed and expenses incurred at the request of the undersigned by reason of such default.					
Signed.....	City.....Cleveland, Ohio.....				
Street and No.....554 Mitchell street.....	Telephone Number.....Cuyahoga 1763.....				
Salesman.....Brown.....					

On the back of this note and conditional sale agreement form, which the customer is asked to sign, appears the indorsement of the electrical dealer as follows: "For a valuable consideration, receipt of which is hereby acknowledged, we hereby sell and assign the within note and conditional sale agreement to the Morris Plan Bank of Cleveland, and we hereby represent that said note and conditional sale agreement is the valid obligation of the person whose name appears hereon as maker. Herron Electric Company."

Spaces are also provided for noting where the maker of the note is employed, what real estate he owns, references given, etc.

Form of deposit slip and receipt stub which minimizes clerical labor in the bank

hereby represent that said note and conditional sale agreement is the valid obligation of the person whose name appears thereon as maker." The purpose of this indorsement is to absolutely bind Herron on the original transaction. If the note isn't *bona fide*, Herron could be convicted by this indorsement for obtaining money under false pretenses. This indorsement lays him liable to criminal as well as civil prosecution. Naturally he has no intention of doing anything so foolish, but the fact that he is willing, even anxious, to become absolutely responsible is a spike in the structure of confidence which he aims to rear with the bank.

But even the signature and two references of the customer, and the absolute obligation of the merchant are not enough for Mr. Banker—he demands that responsible people vouch for Herron, even that they become jointly responsible with him for any possible loss that might accrue from the installment transactions. And not until he had secured these indorsers was the banker ready to talk business.

RESTRICTIONS ONLY TO SAFEGUARD BANK

To the average man this looks like a mighty hard way to get money. It isn't. The bank is bound to protect itself. The fact that it makes its protection crime-proof, carelessness-proof, and triply loss-proof simply means that the bank is not a gambling institution. It is the trustee of depositors' funds and its business is to make profit out of those funds without risk. No trustee has a right to "take a chance." The man who goes to the bank for accommodation must realize this, as Herron did, and must submit to conditions and restrictions which will insure the safety of the money advanced.

* * *

Having worked out the details above, the question of discounting was taken up. The bank agreed to give Herron \$27 for each \$30 note, but here again they felt that a margin of safety should exist, so they

held out 10 per cent of the \$27 (or \$2.70) as a reserve fund to be paid over when the customer's payments had all been made. In other words, Herron gets \$2.50 from the customer and \$24.30 from the bank, or a total of \$26.80 cash on delivery for each \$32.50 sweeper. In addition he gets from the bank the \$2.70 residue when the customer pays her last installment, so that his final total is \$29.50 for each machine.

This is pretty good business for Herron. Also, it is pretty good business for the bank. Herron could well afford to sell sweepers listing at \$32.50 for \$29.50 cash—I suspect he would like to sell several hundred a day on that basis. At the same time the bank is getting from Herron something better than 21 per cent gross on the money it advances, plus a little more than 50 cents in accumulated interest (at 6 per cent) on the weekly payments. Of course, the bank has a great deal of service to perform in connection with these accounts. The bank supplies the booklets of coupons which serve as a sort of combination "deposit slips" and receipt blanks; it must receive, record and receipt for thirty payments on each note, keep accounts of the notes, check up references from time to time, and in the

case of delinquent accounts it must have its whole system more or less upset. While on the face of it the bank may appear to be making usurious interest on the money advanced against these notes, in fact it is simply making a good, clean profit.

HOW THE PLAN HAS WORKED OUT

As to the results of this method of financing installment payments, both the bank and Herron were agreeably surprised. On the first 100 accounts handled, a trifle more than 75 per cent paid in advance of the actual due dates of the installments. Only three were delinquent to an extent that made it necessary for the Herron Electric Company to "pull" the sweepers. A factor in this record for prompt payment is the system of "fines" as set forth in the conditional sale agreement and also in the rules.

This plan could be—and *should* be—put into more general use. Let us look at it from all three angles:

It enables the dealer to sell on installments, yet he gets practically as much for his appliances as he would receive if the customers paid cash and took the usual discount allowed on appliances. He has no collection expense. He has a proposition which enables him to secure the maximum

THE FOLLOWING RULES SHOULD BE READ CAREFULLY

1. You must make your weekly payment promptly at the Morris Plan Bank of Cleveland, corner East 6th and Rockwell Avenue, old East Ohio Gas Offices.
2. The first weekly payment is due on or before Saturday of the week following the date of purchase and the succeeding payments are due each week thereafter until the entire amount is paid.
3. All such payments, until further notice, must be made at the Receiving Teller's window any day, except Sundays and Holidays, between the hours of 9 A. M. to 4 P. M.; Monday, 9 A. M. to 8 P. M.; Saturday, 9 A. M. to 1 P. M.
4. The receipt book must be presented at the time of making payment in order that the amount may be entered therein.
5. If you prefer to make payments by mail you may do so by sending either check, draft, postal, express or bank money order payable to the Morris Plan Bank of Cleveland. Cash remittances should be sent by registered letter to insure safe arrival. Enclose with your payment coupon or coupons corresponding in amount to payment you are making.
6. Should your payment fail to reach the bank within the week it is due you become a delinquent. For each dollar that

you are delinquent a charge of 5c will be made. For example, if you should fail to make your payment within the week it is due you will owe \$1.05, and should you fail to make your payment the next week you will owe the bank \$2.15, as the first dollar has been delinquent two weeks.

7. If you will follow these rules in making your payments you will establish a credit with the Morris Plan Bank that may be of great value to you in the future.

8. Do not forget that the Bank does not look after the service of your machine. When in need of repairs, phone Main 5489 and we will send a repair man to your home within twenty-four hours, who will put your machine in perfect working condition.

9. You may rest assured that you are getting the highest quality in this sweeper and we will do all in our power to keep you satisfied, as satisfied customers are our greatest asset. Boost your machine to your friends. Fill out one of our return post cards, mail it to us, and one of our salesmen will call on them. If he is successful in selling them our machine we will mail you a check for \$2.00 at the end of the month following date of sale for each and every prospect sold.

Assuring you that we are always at your service, we are,

Yours very truly,

HERRON ELECTRIC COMPANY

An element in the success of the Herron plan is the explicit understanding of terms and conditions governing the instalment sale. This leaflet tells the customer exactly how payments must be made

number of sales. His capital is put to work in the producing end—the sales end—of his business instead of being tied up in accounts receivable.

ADVANTAGES OF HANDLING EASY PAYMENTS THROUGH BANK

It enables the housewife to have electric labor-saving appliances on terms which she can meet without reference to her husband's liberality or closeness. Because the installments are *payable at the bank*, the customer

is not annoyed by collectors and the neighbors do not know that the machine is being paid for on the dollar-a-week basis.

It enables the bank to make a good, fair profit without risk and to develop the electrical merchant's account more rapidly than it would develop without this practical co-operation. Of course, many banks would not consider such a proposition because it is too small, because it requires too much work for the amount of money involved. That

is why we emphasized, in an early paragraph, the fact that Herron went to the *kind of bank* that would accept his kind of a proposition. Herron chose a Morris Plan Bank—an institution established to handle the savings and make loans to people of small means. Any Morris Plan Bank—there are a number of them in the country—or any other bank which is not averse to small transactions will welcome a safe, clean proposition of this sort.

THE BEST WAY TO ADVERTISE THE SMALL ELECTRIC STORE

By EARL E. WHITEHORNE

LAST MONTH we published an article entitled "The Missing Link in Appliance Advertising" and in it Mr. Whitehorne pointed out the absolute necessity for close team work between the manufacturer's national publicity and the dealer's local advertising:

When the magazine ad says—"Buy this!" the dealer must chime in and say—"Here's where you buy it!" When the ad says to a woman: "You ought to look at one of these," the dealer must sing out to her: "Drop in. I'll show it you!" Otherwise no one knows where to buy the thing the ad suggests and the manufacturer's money and the dealer's opportunity both have been thrown away.

This article naturally suggested the question: What *should* the retailer do? How should the contractor, the central station manager, the electric store man advertise if he would cash in on this national publicity? We have asked Mr. Whitehorne to tell just what can and should be done by the small retail stores, what *he* would do if he were a small electrical merchant. Here is his answer. There are ideas in it that you can use.—THE EDITOR.

I HAVE been asked to write what I would do if I were an electrical merchant with a small store in some medium-sized city. It is interesting just to figure it out. What *would* I do? What *can* a man do in the way of advertising that will not cost too much money or take too much time or require more skill and experience than the average retailer may be expected to possess? In the first place, let's decide just what it is *he* wants to do.

When a man goes into the business of selling electrical merchandise—appliances and accessories—to the people of his town, there are two things clearly in his mind that he wants to accomplish. First, he believes, or he *knows*, that there is a market for this merchandise right in that town. He knows that every household buys appliances from time to time or would if it were urged and if the purchasing were made convenient. So he opens a store to catch this trade and he wants everybody to know it and where he is and what he sells. He

aims to have his store draw trade from the start.

SUPPLYING WHAT THEY WANT WHEN THEY WANT IT

One other thing he has in mind, also. He knows that almost every popular magazine that comes into his town carries manufacturers' ads and that these ads are read. He wants to carry as many of the nationally advertised appliances as he can so that this general publicity that the manufacturers are paying so much money for will react right to him. When these ads make a man or woman in his town desire something electrical, he wants her to come right down to his store to buy it.

That's what he wants. There are his two objectives. What shall he do? I'm going to tell you what I think he ought to do and I'll list it down conveniently in numbered paragraphs so that if there are any ideas that you have not been applying regularly, you can put a mark against them as you read and then later on try them out.

1. Naturally the first thing that this retailer will do is get a store, and because he wants the store to be noticed—to be seen by everybody—because he wants it to be convenient and to attract the greatest possible number of purchasers, he will want his store to have as good a location as possible. He will want to be as well placed in the shopping district as possible. Read the article that appeared in ELECTRICAL MERCHANDISING for June—"Locating the Retail Electric Store"—if you are not sure just why good location is worth spending money for.

2. When he has moved into his store, the next thing that he'll do, of course, will be to trim his windows, so that all the people who pass by will look and see what he has to sell. But we won't go into the matters of window display. It is essential. Everybody knows it. It is up to every retailer to do his utmost to display his goods with the most appealing force he can contrive. But we are talking about advertising.

Of course, the display of goods is advertising, but we will stick to our knitting and keep our minds on the kind of advertising that has for its purpose to make more friends, to tell more people that the store is right here, and to educate them to a further use of electric service in their homes and in their businesses. There is a distinction.

ADVERTISING IN THE LOCAL NEWSPAPERS

3. The third thing that this retailer would think of doing would be to run ads in the local newspapers. But I say *think of doing*, for many of them do not—either because they don't believe they can afford to spend the money or because they don't know how to go about it.

As to this there is no question that it pays to advertise in the local newspaper. It always has, it always does, it always will if it is done intelligently. And it is absolutely necessary—just as necessary as that your salesman should walk up to the man or woman who enters your store and speak to them. You would not think of standing blank and dumb when a customer walks up to you. Your store must not stand dumb before the people of your town. It must speak to them continually through advertising.

And this is easy. Engage a small space in the newspaper and keep on using it, each day or every other day or twice a week or even weekly, depending naturally upon its cost. But be as generous, as liberal as possible. Use a small space—even single space 5 in. high—and use it often, rather than a large space now and then. If you are prosperous, no more is needed than a double-column 6-in. ad we'll say, with larger displays when you are featuring some special sale. And ads of this kind absolutely pay their cost and plenty of profit on top of that, if you support them with good window displays and friendly service in the store. You cannot question it. Look at the newspapers in any city.

HELP FROM MANUFACTURER AND JOBBER

Therefore, this retailer must run ads in the newspaper. How should he go about it? Let him first write to the manufacturers whose goods he sells. They will be glad to lend a hand if he will tell them what he means to do. He can get good ads for

the asking, copy, cuts and ideas in variety to feature all the lines he wants to push, and if he goes to his jobber for advice he can hit upon a layout for his ads that will be distinctive, something he can use throughout his advertising, something that will build up personality for his ads. There need be no trouble about the writing of his ads. Everyone he buys from will be glad to help. The newspapers will help. And when he wants to run some special message it is easy. It is not hard to write an ad if you will simply talk—just say your say, straight to the point in a few words, as you would if you were speaking with but a moment to get your suggestion over.

So far so good. All this is just what every merchant tries to do. But there are other ways that you can advertise—to tie up with national advertising, for instance.

4. If I had a little store of my own I would subscribe to the *Saturday Evening Post*, to *Collier's*, to *Good Housekeeping*, to *Vogue*, to the *Ladies' Home Journal*, to the *Literary Digest*, and a half dozen more of the popular magazines that carry advertisements of appliances you sell. Ask the manufacturers where their ads will appear, then spend \$15 or \$20 on subscriptions. Have the papers sent right to the store, and every time a magazine comes in, look it over *at once*. If there is an ad in there of some appliance that you sell, cut out that ad, paste it on a sheet of wrapping paper, write above and below the ad with black crayon a message such as: "You can

see it here! We sell it! Come in and try it! Indorsed by *Good Housekeeping* and thousands of women who use it." Then paste this sheet on your window, with an arrow pointing down. Below it place the appliance itself with the copy of the magazine from which the ad is torn beside it. What is the effect?

Hundreds—maybe thousands—of other people in your city have also received that magazine that day. They have looked through it, or will look through it, and will see that ad. A large percentage of them will read it. And when these men and women see the pertinent reminder in your window they will say: "Ah! There's that fan I read about this morning. I'll just look it over." To everyone to whom that magazine ad has said "You ought to buy one!" You've added "Here it is. I'll show it to you now!" You have made that manufacturer's ad react to you.

OTHER USES FOR THE WINDOW POSTER MESSAGE

5. This window poster message idea is a good one that you can use in other ways. Each week, according to the season and the weather, there are suggestions you can make, by just writing on a sheet of paper what you would advise the public to buy right then and why.

In very hot weather, for instance, write: "Do you know that you can cool a room off quickly by standing a cake of ice in front of an electric fan? The air passes across the ice and blows a cool breeze. Come in and see just how to do it. Take a fan home now." Then have a fan in the window blowing across a block of ice.

One could write fifty messages that you could feature in this way—and so can you—about flashlights, toasters, heaters, vacuum cleaners, almost anything. Try it. Such a message looks so personal that everybody reads it. It talks straight to the man who reads. He likes it and he watches for these friendly tips. It sells goods for you.

6. And every time you feature any appliance in this way, be sure that beforehand you secure from the manufacturer a variety of folders covering it and kindred devices. Then write at the bottom of your window sign "Here is a little folder all about it. Come right in and get one." And in the window, of course, you will arrange a few to tease the readers in.



Labor and Material Plus 50 per Cent

If your "overhead" runs 23 per cent of your year's gross business (which seems to be about what it COSTS most contractors just "to do business").

And if you want to make ten per cent profit—

To find your selling price—

You have GOT TO add 50 per cent to your costs for labor and material.

In other words, selling price equals cost of labor and material plus 50 per cent.

In the majority of cases all this can be made to tie in with some manufacturer's selling campaign, well supported by the general publicity that everybody is then reading. In ways like this you can make your window do far more than just show goods. It will reach right out and speak to people. It will chat with fifty men and women where an ordinary display would reach but one. It builds up reputation—personality for your store that makes you friends all over the town.

CASHING IN ON DEALER-HELP SUPPORT

7. And there are other ways to advertise that I would take advantage of if I had an electric store. I would take the clever campaigns that the manufacturers prepare, and try to utilize them to the limit.

Every campaign of national advertising is backed up by strong dealer-help support. It has to be. Without the local reaction to the dealer, no goods are sold and the money is wasted. So there are always folders, car cards, window and store signs, mailing cards, letters and newspaper ads prepared and offered gratis to the dealer. I would use them. So should you. And where the manufacturer spends a good slice of his many hundred-thousand-dollar advertising appropriation through the many magazines that come to my town, and in the dealer-help material he offers me, I think I'd just be sport enough to spend a little bit of my hard cash on postage stamps, and reach out to some of the good prospects in my town and talk turkey to them.

I would send out some of these attractive folders at the time that the manufacturer's ads are appearing and I would send a personal letter with them to maybe a hundred homes. I'd write that letter simply, just the kind of letter that I'd write to a friend and send the thought—"You have seen the ads. I want to tell you that I sell 'em and I'd like to show 'em to you. Will you drop in here or shall I come?" Let the folder talk about the appliance, let the letter talk about myself. It's an ingenious combination.

THE HOUSE-TO-HOUSE MESSAGE

8. Sometimes I would mail these folders, sometimes I think I'd hire a few small boys to ring doorbells on certain streets and leave a little bun-

dle of a half dozen folders wrapped up in a little note written by hand, a little message that would reach the spot.

For instance, I would take a set of folders about half a dozen hot-weather appliances, and write a note in black crayon to say: "Here are the things that electricity can do for you in these hot weeks, etc. Just look them over and see which one you need the most. I'll show you how you can acquire it easily, etc." Then I would have a cut made of this writing and print as many as needed. I think that it would work once in a while, supported by the regular newspaper ads and window messages.

EASY PAYMENTS, WITH 5 PER CENT TO COVER COLLECTION COSTS

9. I would sell the larger and more expensive appliances on easy payments, adding 5 per cent to pay collection costs, and I would advertise this easy payment offer steadily. Here is a subject for occasional window messages, for letters that could profitably be sent to lists of homes and to be featured every little while in the newspaper ads. It could be used to make a feature offer of special groups of small appliances too. Such offers interest everybody, and it is something you can talk about again and again.

* * *

THESE things the retailer can do and these things are enough for him to do to advertise his business adequately and successfully if he will keep it going, hitching up with each successive manufacturer's campaign as it comes along. The matter of a mailing list is not hard to arrange. The central station knows who

the best prospects are. It knows who to write to, and the contractor who is eagerly building up a retail business can get all such good advice he needs. But mailings of this kind need not be made often and lists need not be large, for it is far better to write a hundred good names five times than a thousand once. The main thing is to tie up to the manufacturers' campaigns and get the benefit of all they are doing in your town.

THE MANUFACTURERS' MEN ARE READY TO HELP WITH YOUR ADVERTISING

I can see no reason why any man who sells electrical appliances need be afraid to advertise, or feel that he does not know how. The manufacturers' big advertising men know how. They know just what he ought to do and they are ready all the time to help him do it. There isn't much left now-a-days for him to do himself, except to use the good stuff that they offer. It is free. They'll tell him when and how to use it, and it is the only way he can cash in with full profit on the rich opportunity their publicity is constantly creating for him.

And so I say—Don't hesitate. The advertising that you ought to use is ready waiting for you. There is no reason for any electrical merchant sacrificing all those profits that he may develop by proper advertising. There is no excuse for his neglecting so obvious, accessible and urgent an opportunity. Let him talk to the public man to man from his window and from the newspaper. Let him utilize all the dealer-help material that he can. He will find that it pays him constantly and well.

"Costs Unknown"

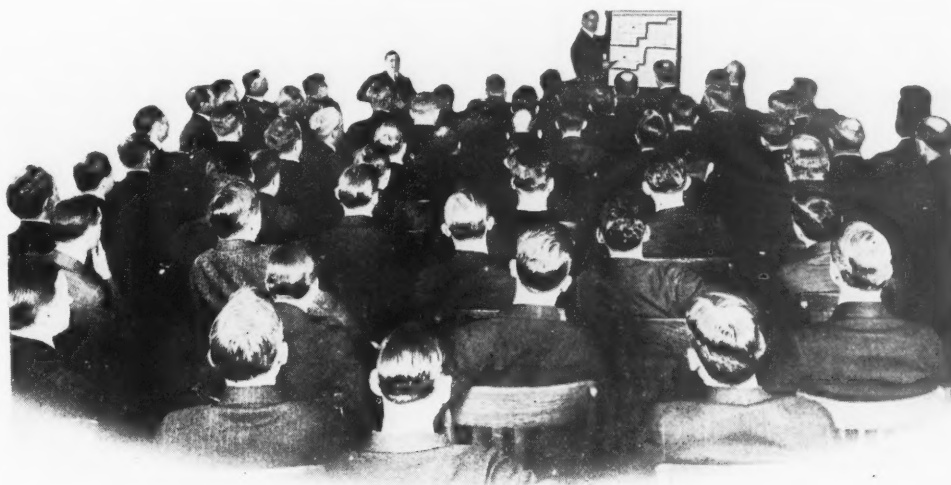
BY CHARLES L. FUNNELL

Outside a drear electric shop a sad scene marred the view—the ex-contractor lay deceased. He was a good scout, too. His eyes were closed for business and his chawers stood ajar; his toes were pointed skyward at a somewhat distant star.

A friend stood sadly o'er him where he lay with ghastly stretch; his brow was drawn with sorrow and he wept three tears. (Note sketch.) 'Twas hard to see Bill lifeless when a few short hours before he was busy cutting prices—but now he'll cut no more.



"Bill was an able wireman," mourned the friend who ought to know, "but he never wore his sky-piece when he rambled in the snow. His foliage grew thinner and now poor William's dead. In spite of frequent warnings he ignored his OVERHEAD."



"As a matter of fact," Davis interrupted, "you gentlemen at present represent a very inconsiderable part of the appliance business of this city, unless I am greatly misinformed. Let me show you." He had brought a roll of charts and tabulations which he now tacked up on a standard in front of the assembly.

Keeping the Business Inside the Electrical Family

Davis of the Brass Tack Brigade Tells the Contractor-Dealers of Manchester About Some of the Appliance-Selling Opportunities They Are Overlooking Right in Their Own Home Town

By FRANK B. RAE, JR.

"YOU'RE just in time," said Davis as I walked into the office of the Combination Gas & Electric Company. "I want you to come over to Manchester with us—special car—big doings."

"What's up? I have to earn my living, you know, and I can't go joy-riding in mid-week."

"Hadn't you heard? Old Man Dowd has bought the Manchester Light & Traction. We're going to make that little city the electric center of the universe. The old company was dead and municipal ownership threatened, so our Old Man went to the City Council and told 'em that if they would lay off the M. O. proposition he would buy the company, reduce rates, give 'em real service and boom the town as we've done it here. The deal is made."

"But why the special car?"

"Well, you see, as soon as the electrical contractors and jobbers over in Manchester heard that we had taken hold, they began an agitation to keep us from going into the appliance business. The old company never sold appliances and the contractors don't want us to. They've called a big meeting to talk it over. You're to come to that meeting."

"And get shot in the pants as an

innocent bystander," I suggested. "Pleasant prospect."

But I went.

* * *

THE meeting was called in the assembly room of the Manchester Commerce Club. A number of the local electrical men were present. Old Man Dowd, young Dowd, the company lawyer, Davis, Big Jim Lenox and myself represented the new ownership of the lighting company.

"I will state our case briefly," began the spokesman of the Manchester contractors. "We understand that it will be the policy of the new management of the Light & Traction Company to sell appliances. We protest against such a policy. We have been in business many years and have invested our money in appliance stocks. Our business and our investments should not be confiscated by the Traction interests who sell appliances at cost. We——"

"One moment," cut in Davis. "Let us not let any misstatement go unchallenged. The new management does not propose to sell appliances at cost. Nobody but a fool does that now-a-days, and we are not fools. Years ago a certain number of central stations thought they had to sell ap-

pliances at cost to get them introduced, but to-day we know that such a policy is bad. So I can state flatly that all appliances we may sell will carry a fair overhead and a reasonable profit. Our prices will in all cases be as high as yours—maybe higher."

"Well, we don't want you in the business at all," continued the spokesman. "The business belongs to us. We——"

"By what right?" snapped young Dowd. "Show us your title to the appliance business and we'll quit. We do not recognize that the appliance business 'belongs' to anybody."

"As a matter of fact," Davis interrupted, "you gentlemen represent a very inconsiderable part of the appliance business of this city unless I am greatly misinformed. Our representatives have been studying conditions here pretty carefully. Let me show you." He had brought a roll of charts and tabulations which he now tacked up on a standard in front of the assembly. "You will see by this table the approximate amount of appliance business done in this city during the past year. We find here no less than six specialty concerns which handle vacuum sweepers, washing machines and other specialties. Their sales are much in excess of your sales of the same sort of appliances."

"For example, one manufacturer told me—and proved it by showing me his ledgers—that he had given exclusive sales rights on his appliance to two of you gentlemen, one located on the east side of town and one on the west. After you two men had the agency a year, a specialty man came to this manufacturer and guaranteed to sell just twice as many of his appliance as both of you put together. The specialty man made good. If the appliance business 'belongs' to you, why do you not take measures to eliminate the specialty men?"

"That's not all," spoke up Big Jim Lenox. "When I was going over the ground here I had a talk with a manufacturer of heating appliances. I found that he had almost 100 customers in this city—little hardware shops, department stores, even drug stores. This manufacturer keeps a stock right here in town and has a local salesman who rides around in a flivver, keeping these customers lined up. He also sells a good many industrial appliances to the factories. Five or six of you gentlemen sell this manufacturer's goods over the counter, but you are not his largest dealers. One department store sells more of his goods than all of you together. Furthermore, he tells me that he couldn't induce you to go out after the industrial appliance business, so he handles the part direct. If the business 'belongs' to you, why don't you find some means of hamstringing the hardware and department stores—why don't you prevent this manufacturer from selling his industrial appliances direct?"

"Well," said the contractors' spokesman, "this ain't your business. Your business is to sell current. You oughta stick to that and leave us fellows have the appliance business."

"Wrong again," said Davis. "Our business is not to sell *current* but to sell *electric service*. We are justified in doing anything legitimate to promote the sale of that service—provided we do not injure anyone."

"That's just it: you injure us by selling appliances. You take the money right out of our till. You steal profits that belong to us."

"What is your basis for that statement?" asked Dowd.

"Why, if you sell a man an appliance, you prevent us from selling him. You get the profit, we don't."

"My friend," said Dowd. "do you happen to know the conditions that obtain in the territory of the Com-

bination Company where we have been selling appliances for many years? We have a chart here that will tell you. You see by this curve that the contractors there have done as much wiring work in the last five years as they did in the previous fifteen years. They are selling as many appliances every month as they used to sell in a year. They have very little department store competition because we have taught the public to go to the electric shops for electric goods. Our purchases from the local jobbers amount in several cases to 30 per cent of their business. We are selling \$500 worth of appliances a day, which is more than were sold by all the contractors put together before we took hold of the situation, yet everybody in the business is prosperous."

"Well, they won't be for very long," retorted the Manchester spokesman. "In another year or two you'll have the town sold up on appliances and then there won't be any business for anybody. We want to nurse this town along. We don't want to work ourselves out of a job."

"You talk like a job-holder who's trying to prevent the use of labor-saving machinery," snapped Davis. "You think that there's only a certain amount of business to get and that when that amount is secured you will be through. But you're wrong. There is, in practice, no such thing as a point of saturation."

"It's like the baby-buggy business," added Jim Lenox. "There's always a market for baby buggies 'cause there's always new babies. Nature takes care o' that."

"Do you gentlemen happen to know," put in Dowd, "that the total amount of electric heating appliance business in the whole United States is approximately but \$7,000,000? Why, one concern I know about sells \$3,000,000 worth of chewing gum! When the appliance business is \$100,000,000 a year you can begin worrying about the town being 'sold up.'"

* * *

OLD man Dowd lumbered to his feet. "Gentlemen," he said, "I don't pretend to know much about the electrical business. I'm simply a bondholder and all I really know is that securities in electric light companies are safe, paying investments."

"But when this subject came up I began to do a bit o' investigating on my own account. I says to myself, 'The only basis for these dealers ask-

ing us to keep out of the appliance business is this: They're taking advantage of every opportunity to get business, and even then they have got so little that it'll hurt 'em if we go into competition. If that's true,' says I, 'then we must keep out.'

"Well, our investigations proved it's not true. The contractors and dealers and jobbers are not taking advantage of every opportunity."

"I found, as Mr. Davis has already said, that the manufacturer of washing machines sells through agents. These manufacturers tell they can't get satisfactory business from the electrical trade. Vacuum cleaners are sold through agents. Coffee mills and meat grinders and such things are sold through the butchers' supply houses. Tailors' irons and pressing machines are sold through tailors' supply houses. Glue pots, soldering irons and such devices are sold direct by the manufacturers. And, finally, here is a concern with a farm lighting unit that says 'Tell with the electrical trade' and goes ahead and sells \$7,500,000 worth of its outfits last year by means of agents. I find drug stores, department stores, 5 and 10-cent stores, hardware stores, sporting goods stores, mail order houses, premium concerns—all selling electric goods. And why? Simply because the electrical trade is *not meeting the popular demand*."

"Now, gentlemen, your purpose with the Light & Traction Company is not to protest against our going into appliance selling, but you should be here to confer with us as to how we can pull together so as to keep the electrical appliance business within the electrical trade."

"I won't say now whether the Traction Company will go into appliance selling or stay out, but if you gentlemen are agreeable, I will set the date of another meeting at which you will discuss our real purpose, which is, how we can all make the most money. One thing is certain—we can't make maximum profits by pulling at cross purposes. Let us, then, try to find a sound basis for working together."

The Old Man took his hat and left the room. Davis smiled.

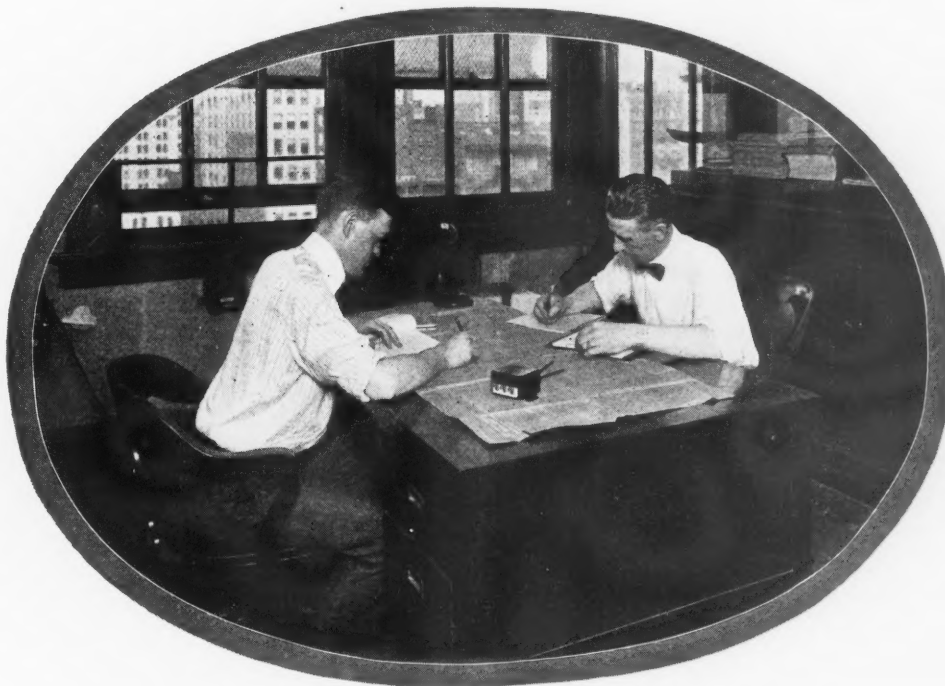
"Gentlemen," he said, "the Big Boss has pointed out the real solution. Let's see what can be done toward keeping the electrical business of Manchester within the electrical family. That's the big problem of the industry to-day."

MAKING UP THE ESTIMATE

The Need for Accuracy Based on Knowledge of Labor and Material Costs and the Relations These Bear to "Overhead" Expense—The Three General Classes of Estimating Methods—Third Article of a Series on "Making Electrical Contracting Pay"

By EDWIN L. SEABROOK

Author of "How to Make the Business Pay" and Other Works on Business-Building Methods



Estimating is the vital part of the electrical contracting business; for the estimate can place the business in bankruptcy or put it in a flourishing condition.

Business methods are focussed in the estimate. Handling labor and right buying are also component parts of it.

The estimator of large complicated construction work holds the financial future of his firm at the point of his lead pencil. And this is no less true of the small electrical contractor.

ESTIMATING is the vital part of the electrical contracting business; the estimate can place the business in bankruptcy or put it in a flourishing condition. Correct estimating depends upon a great many factors, and the estimator must know a great deal about many things. Business methods are focused in the estimate; handling labor and right buying of material are also component parts of it. The estimator in large complicated construction work holds the financial future of his firm at the point of the lead pencil.

Despite the vital importance of estimating, many go at it in a most haphazard manner rather than as a serious problem involving profit or loss, and the financial stability of the business. Accurate estimating is possible only by comparing the quantities of labor and material actually used, with

the amounts estimated. In order to do this it is necessary to keep in some permanent form a record of the quantities used in compiling the estimate.

Some element of uncertainty enters into estimating, but there should be no "guesswork" permitted in such a vital business matter. Estimating should be based on experience, from contracts and work already performed. This experience will be available if proper accounting methods are practised. This involves keeping an accurate record of each piece of work, big or little, and of the amount of labor and material used.

For how is it possible to intelligently make an estimate or price when it is not known whether the exact kind or similar work previously performed yielded a profit or made a loss? In spite of this self-evident fact many go on making estimates with-

out the slightest idea as to whether previous work of a like nature was done at a profit or a loss. From this it will be seen that estimating is closely allied to accounting and bookkeeping. The competent estimator must draw his facts from several sources—prices of material and labor, experience on similar work, and his bookkeeping or accounting system which will show, among other things, the cost of conducting business or "overhead."

Every estimate or price is or should be composed of four elements: *i. e.*, labor, material, overhead, profit.

Even a casual study of the composition of an estimate or price shows that it is not correct if it does not contain these four elements. It is, therefore, quite apparent that the proper estimating method is to build it up, or put it together from the ele-

ments that compose it. While these four elements are related to each other, each is distinct so far as the quantity or amount is concerned. When the estimate is completed it should be possible to know the exact amount allowed for each element. When the contract has been completed the estimated amounts should be compared with those actually used in the performance of the work.

HOW CONTRACTING DIFFERS FROM MERCHANDISING

The electrical contractor is no less a merchant because he applies the material to buildings than one retailing merchandise. He has assumed two jobs instead of one. The compilation of a price and distributing the operating expense differs radically between merchandising and contracting.

In merchandising the selling price is placed on the article after its cost is pretty thoroughly known.

In contracting the selling price is placed upon the work before the cost is known.

The merchant takes his cost from the invoice and his "overhead"; the contractor must *estimate* the amount of labor and material required, and is never certain of the cost until the work is completed. The merchant in naming his selling price has in general no such fluctuating factors as labor and material. There is but one method of applying "overhead" and profit—price uniformity of merchandise naturally follows. Evenness and stability of prices are the results of such uniform application in merchandising.

Unfortunately, this uniformity of cost, of overhead and profit application does not exist in contracting. The contractor must estimate, and there is an element of uncertainty, and because of this uncertainty many contractors take a gamble. If, like the merchant, they knew exactly where cost ended, there would be no disposition to take a chance.

But, again, there is no such thing as a perfect cost system. The exact cost of an article, where more than one line is taken on, is not determinable. For all practical purposes, however, the approximate "overhead" can be determined. Different methods of distributing expense, or overhead, produce different estimates or prices. The cost of conducting business is of necessity distributed on a theory, and these theories are legion.

A dozen firms will have as many expense distribution theories. None of these is perfect, otherwise that one would be a fact and not a theory. Ten firms, with as many theories of expense distribution, will make ten different selling prices.

Overhead enters, of course, largely into the contracting business, and the distribution of this expense is the reason for variation in estimates from the same plans and specifications. The percentage of overhead may be the same, but the method or theory

to estimate on the same contract, using these ratios in computing the overhead in the estimate.

ESTIMATE NO. 1.

Cost of material.....	\$200.00
Cost of labor.....	340.00
	<hr/> \$540.00
Overhead, 51 per cent of productive labor	173.40
First cost	<hr/> \$713.40

ESTIMATE NO. 2.

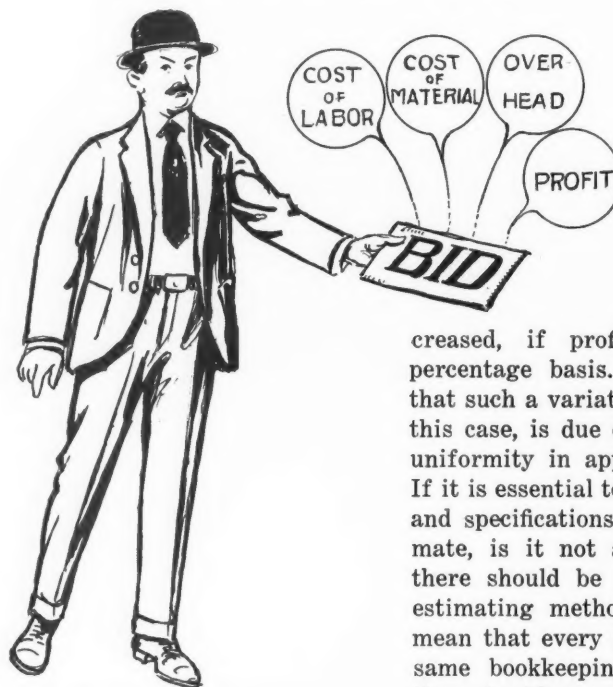
Cost of material.....	\$200.00
Cost of labor	340.00
	<hr/> \$540.00
Overhead, 30 per cent of labor and material	162.00
First cost	<hr/> \$702.00

It will be seen that there is a difference of \$11.40 on the item of expense alone between the two estimates when total cost is reached, which will be in-

creased, if profit is added on a percentage basis. It is self-evident that such a variation, small as it is in this case, is due entirely to a lack of uniformity in applying the overhead. If it is essential to have uniform plans and specifications upon which to estimate, is it not also reasonable that there should be some uniformity in estimating methods? This does not mean that every firm should have the same bookkeeping system, but that they should approach the "cost of doing business" and the application of it on the same basis, or by the same method. General contractors often express surprise at the great variation in the bids of sub-contractors. While much of this may be due to loose methods, guesswork and mistakes, undoubtedly a large portion is due to a lack of uniformity in applying the overhead.

ESTIMATING METHODS

The forms and practices of estimating and price-making almost defy enumeration and description. These vary from the clumsy, careless, unreliable, all the way up to methods that are as near perfection as possible. But all these forms and practices fall under three general systems: Rule-of-thumb, lump sum, and unit of labor and material. The first step is taking the quantities from the plans, etc. The care with which this should be done is too self-evident to need any comment. A permanent record in some form should be made of the es-



Into every bid or estimate must go the four elements—cost of labor, cost of material, cost of "overhead"—and profit.

It is evident, then, that the way to make up an estimate is to build it from the elements that compose it. For while these four elements are related to each other, each is distinct so far as the amount is concerned.

of distributing this produces different results in the final estimate. This variation can be very forcibly illustrated by the experience of two firms in the same line of business, located in adjoining towns. The sales of both were nearly the same, and both made a fair profit. One firm based its overhead on "productive labor," taking overhead as 51 per cent of this item; the other took overhead as 30 per cent of productive labor and material combined as the proper basis upon which to apply the overhead. The accounting systems of both firms were excellent, and there is nothing exceptional in the ratios of expense.

Suppose these two firms are invited

timate; this should be in a book or on make-up sheets. Provision should be made for a comparison when the contract is completed. Estimates should not be made on scraps of paper. If the estimate is too trivial to be well done, it had better be left alone.

A few estimating examples drawn from actual business practice will illustrate the proper and improper methods of compiling prices. As emphasized already every profitable estimate or price will be composed of these four essentials:

Cost of material.....\$.....	
Cost of labor.....\$.....	
Overhead or cost of conducting business.....\$.....	
Total cost or safety point.....\$.....	
Profit.....\$.....	
Price or estimate.....\$.....	

The work upon which the following estimate was made was performed on a building in Pennsylvania. The first column is the estimate in condensed form; the second column shows the contract cost:

	Estimate	Cost
Materials (itemized).....	\$1,119.00	\$1,094.24
Labor (productive).....	380.00	333.00
Overhead, 55 per cent of productive labor.....	209.00	183.15
	\$1,708.00	\$1,610.39
Profit, 30 per cent of total cost.....	512.00	
Bid.....	\$2,220.00	\$1,610.39
Actual profit.....		609.61
Contract price.....		\$2,220.00

The completed work shows a good profit, yet this was the lowest of five bids. A study of this estimate shows that every feature of the work was carefully analyzed and the computations intelligently put together. Another important feature of this transaction was that the cost of each item was kept as the work progressed.

THE "LUMP-SUM" METHOD

The following estimate is a striking example of the lump-sum method. The selling price is the only item named, except labor, for which the time is given.

	Selling Price
Material.....	\$130.00
Labor, four and one-half days, man and helper.....	28.80
	\$158.80

As these "lump sums" were the only data at hand, and not knowing the real cost, an offer of \$144 was accepted. The results of the completed contract were:

	Cost	Selling Price
Material (itemized).....	\$99.86	
Labor.....	22.50	
	\$122.36	
Profit (?).....	21.64	\$144.00

The profit, \$21.64, however, is almost an illusion, since the element of overhead has not been included. This overhead should be based on productive payroll, and the real factors then become:

Cost of material.....	\$99.86
Cost of labor.....	22.50
Overhead expense.....	11.70
Profit.....	9.94

Selling price.....\$144.00

The first estimated price of \$158.80 would have allowed a substantial profit. But the estimate was compiled in such a manner as to render it impossible to determine the probable cost. If the original estimate had been put up in something like this form: Material (itemized), \$99.86; labor, \$22.50; expense, \$11.70; profit, \$23.94 = \$158, it would have been seen at a glance that the price could not have been cut to \$144.

DON'T COUNT YOUR PROFITS UNTIL MADE

A large percentage of contractors who figure to make a profit do not make one-third or one-fourth of what they estimate, while many lose money on contracts without knowing it. Most of this is due to bad estimating and failure to check up the cost of each completed item with the estimate. This is particularly true of small work.

Here is an example of a loose estimate, lumped sum, for \$80, which was named for the selling price.

After the selling price was named, the make-up worked out was:

Materials.....	\$51.00
Incidentals.....	5.50
Labor.....	24.00
	\$80.50

Results of completed contract:

Materials.....	\$46.25
Labor.....	20.00
Cost.....	\$66.25
Profit (supposed).....	13.75
	\$80.00

The expense of conducting business, or overhead, on this job was \$10, calculated on the productive labor method. The real profit was, therefore, \$3.75.

This estimate is faulty, because the cost of material, expense and supposed profit are lumped together instead of being separated. How much more intelligent this estimate appears when put together as it really should be:

Cost of materials (itemized).....	\$46.25
Cost of labor.....	20.00
Overhead expense.....	10.00
Cost.....	\$76.25
Profit.....	3.75
Selling price.....	\$80.00

Probably the most surprised of all to this transaction would have been the compiler of this estimate in lump summing it to learn of the narrow margin of \$3.75.

The lump-sum method shows nothing but the selling price and cannot be commended for accuracy or profitability. It is an easy method, but deceptive, because the selling price is not analyzed into its component parts. The amounts allowed for material, labor, incidentals, overhead and profit are not shown. The price named is not developed out of an experience and accounting, but because the amount named seems to be the prevailing price. This class of estimates is used because the price has been fixed, either by competition or some other circumstance, it being assumed that the cost of performing the work would be less than the selling price. Another undesirable feature is that the one who estimates by the lump sum method does not generally keep a record of the cost of each contract and has no means of determining whether there is a gain or a loss. While the amounts of the above illustrations are small, the principle is precisely the same for estimates of any size.

THE UNIT METHOD

The "unit method" is the most accurate estimating system; its value consists in detailing every unit of material and labor required. It also lessens the chance for omissions, underestimating and other errors. It consists in taking each part of the work as a unit. This system adapts itself very readily to the installation of electrical work, probably more so than any other portion of building construction. For instance, the number of feet of conduit can be considered as a unit. The cost of this material and the labor of installation completing the unit makes the estimating comparatively easy and accurate. This system is more accurate in taking work from the plans, as different portions can be checked against the work shown on the drawings. Another feature in its favor is the ease with which the estimated cost and real cost can be compared. This method takes a little more time, more painstaking, more detailed work than the lump sum, but estimating is too vital a part of the business to be slighted, or lumped, because somebody is in a hurry.

Electrical Merchandising

The Monthly Magazine of the Electrical Trade

Volume 18—August, 1917—Number 2

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Selling "Increased Factory Output"

THE successful lighting salesman or contractor sells—so far as the customer is concerned—not wiring or lighting fixtures, but improved illumination, and greater safety, convenience and comfort.

Consider for the moment the sprinkler systems installed quite generally for fire protection. The distribution of these sprinklers throughout a building is not unlike the distribution of lighting outlets in the same structure.

But are sprinkler systems sold as so much pipe, fittings and labor? You have never seen them advertised on the basis of how much water they will deliver in a given time, whether steel or wrought-iron pipe is used, or whether the fittings are cast or malleable. There must be many of the same points of difference between sprinkler systems that there are between lighting systems—and the sprinkler, moreover, is less of a necessity. It is sold almost entirely on reduced fire risk—on what it will do—not what it is, nor how it works.

Likewise, successful factory lighting sales are not a matter of lamps, reflectors, installation cost and kilowatt-hours. On such a basis sales are slow and the field is full of competition with small profits. But how much easier and more satisfactory for the salesman or contractor to sell reduced accident risks, reduced accident insurance premiums, greater accuracy in workmanship, lessened spoilage of materials, increased factory production for the same labor cost, easier supervision of employees, lessened eyestrain, better satisfied workers—all of which points can be justified by better lighting. And, remember, too, they have been used over and over again in successful sales in hundreds of factory installations.



On Knowing Your Business

ACLEVER young salesman applied for a job with an electric service company doing a large suburban and rural business. Among other duties, the job involved the sale of electric pumping equipment to farms and ranches.

"What do you know about pumping?" asked the sales manager.

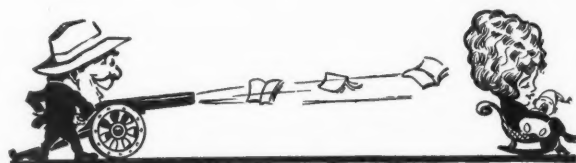
"Everything," answered the salesman decisively. "The only variable factor is the possible receding water level in the well. Outside of that, everything there is to know about pumping is all set down in the books—and I know the books backward."

"Well," said the manufacturer, "how many gallons of water does the average cow drink per day? How much water does the average family of five persons use per day for drinking, bathing, dish and clothes washing, housecleaning, etc.?—how much water is required to sprinkle a lawn 50 ft. by 50 ft.?—how—"

"But what's all that got to do with pumping?" asked the salesman.

"Everything. We're selling a motor hooked to a pump, but the farmer is buying water for his stock, his household, his garden in drought times. We're selling him not only kilowatt-hours; we sell him water at the faucet or hose nozzle. Knowing about head, lift, gallons-per-hour, motor efficiency, pump efficiency, pipe sizes, and all the stuff in the books, is only the beginning. You've got to know about the capacity of a thirsty calf and the water requirements of the family wash if you expect to make good for us."

Which basic idea can be—must be—applied to every business as a preliminary to successful salesmanship.



Making the Argument Fit the Case

THERE is no salesman worthy of the name who does not look his prospect over quickly as he comes before him or her, to adjust his conversation to the case. Yet when it comes to talking to this customer on printed paper, lots of men just load the gun and shoot around promiscuously. They fire the same thing at everyone in sight—the folder or the booklet, anything that happens to be handiest. It's wrong. It wastes good advertising matter and it wastes good opportunity.

Remember it next month while selling vacuum cleaners—and cashing in on the co-ordinate campaign. Don't send to the young housewife in the little cottage a folder that speaks of buying hundred-dollar appliances as though it were the merest trifle. Don't send a do-your-own-work folder to the houses of the restless rich. Just remember that this printed matter is going out to talk for you—Be sure it talks as sensibly as you would if you made the call yourself.

It is just as serious to talk foolishly in type as by word, and when this foolish talk is sent out wholesale it's worse!

Don't Be Afraid to Collect

RENDER and collect your bills promptly. Don't be afraid of losing business by such a policy. The real business man will like it, for he wants to pay promptly; the "slow-pay" man may kick—but any business actually lost on that account is business that is best lost. Good credit is necessary for the contractor, but the banks are not going to loan money to anyone with too many charge accounts long overdue. One banker and public accountant estimates that 50 per cent of business failures are due to extending more credit than capital warrants. Whatever the percentage is, watch your credit business. And render and collect your bills promptly.

IDEAS FOR THE MAN WHO SELLS



*Plans, Schemes and Methods to
Increase Sale of Electrical Goods*



A Live Publicity Scheme to Push Flat-iron Sales

"The electric iron is one of the greatest boons to the busy housewife ever invented," says a live Illinois dealer, "but it isn't the easiest thing in the world to bring a woman who has never used one to realize just what it means to her."

"For the purpose of educating women along this line we recently offered altogether \$15 in prizes for the best three letters from housewives, telling why they wouldn't be without an electric iron."

"A great many participated in this contest, and the number of good letters received was most gratifying. Several of these communications I had printed up in circular form and most thoroughly distributed over town."

"Furthermore, I picked from them certain pertinent statements, had them printed on placards in large type, showing at the bottom the name of the writer. Here's an example:

"It makes ironing a pleasure."

MRS. GEORGE HARTMAN.

"These were prominently placed, along with a nice electric iron display, in the show window."

"On the day set for the distribution of prizes there was a crowd in the store all day, and we did a splendid business on electric irons and other appliances."

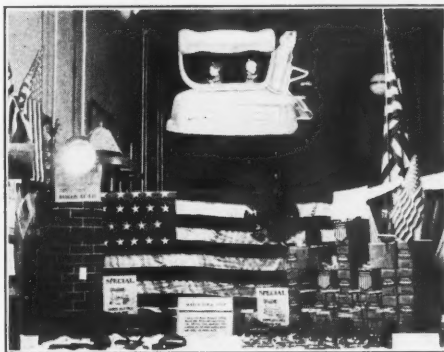
Profit in Specializing on Telephone Batteries

A large number of rural telephones are operated by dry cells, and the demand for batteries suitable for this class of service in Texas has become sufficiently large to induce the Mount Pleasant division of the Texas Public Service Company to carry a stock of special telephone cells. C. A. Bergen, who manages the company's Mount Pleasant office, has been sending out circular letters to users of rural telephones calling attention to the company's new line and offering to help in solving any electrical problems the

reader might have. The idea struck a responsive cord, and, as Mr. Bergen says, "it brought home the bacon."

A War-Time Electric Iron Display

An electric iron as a flying machine is the feature of this Illinois window display. A large iron operated by two



"An Electric Iron Makes Work Fly" is the placard that goes with this war-time window display.

small dolls and propelled by an electric motor driving a propeller has the caption, "An Electric Iron Makes Work Fly." On the side a fort has been built

of containers for the irons, with a battery of porcelain-tube "guns" pointed in a hostile manner.

A "Most Uses" Contest

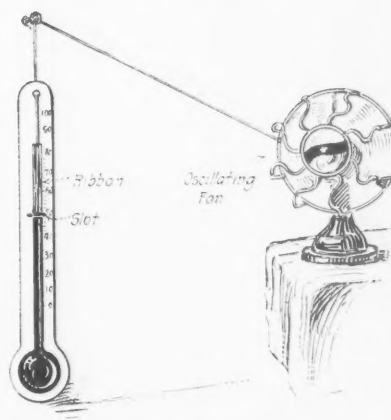
Interest in your store and in your stock of electrical appliances may be greatly increased by offering a series of prizes (electrical articles being used for the prizes) for the two or three lists of the greatest number of different uses of electricity in the home. Accompany this offer with window displays showing a great variety of appliances for domestic use. Make the displays as informative as you can and don't be afraid to put a lot of different things and a lot of carded information into them, because, contrary to the usual rule for simplicity in display, the people entering this contest are going to want to study windows that show a great variety of items. Put a big banner across the top of the window, reading "How Many Uses Has Electricity in the Home?" Use this same catch phrase in the newspaper advertising of the plan. Run the scheme for perhaps two weeks, giving it plenty of publicity all the time and encouraging people to hand in their lists. Everybody likes a chance to get something for nothing and there ought to be plenty of contestants. Of course the prize-winning lists will be shown in the windows with the winners' names attached.

A Fan Window Display That Made the Mercury Settle



A New Jersey dealer devised this novel window display to attract attention to his electric fan stock. To the ribbon "mercury" in a large dummy thermometer he attached a cord run over eyelets and fastened to an oscillating fan, with this result: As long as the fan was turned away from the thermometer the mercury column in the latter's "tube" registered 100 deg. Fahr., the prevailing temperature the day the display was installed.

As the fan turned, however, and poured its breezes on the thermometer the mercury appeared to run rapidly down to 50 deg., where it remained as long as the fan was pointed that way. A moment later



the fan turned away and the mercury popped back, only to be driven down again by the fan on its return trip—and so on throughout the day.

What to Cook Electrically and How

The New York Edison Company has issued a booklet entitled "Current Menus," in which several attractive

Round Grill with small Oven, 560 watts		
On top you can		Underneath, and at the same time
Bake	Boil	Saute
Cookies 25 minutes	Sweetbreads 10 minutes	Cream Sauce for Sweet- breads and Mushrooms 10 minutes
		Broil
		Mushrooms 3 minutes
		Crackers 5 minutes
		Toast 4 minutes
Total time of cooking	Current consumed	Cost at 8 cents a KW
<i>on Grill</i> 45 minutes	420 watts	3 7/8 cents
<i>Percolator</i> 20 minutes	150 watts	1 1/2 cents
<i>Drink Mixer</i> 5 minutes	4 1/2 watts	1/8 cent
Total, 4 1/8 cents		

Five cents will prepare this attractive supper electrically

luncheons and dinners are suggested.

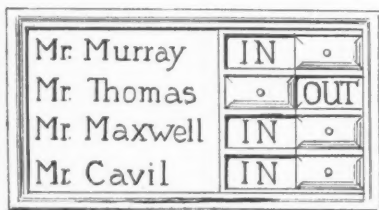
Recipes for preparing the various dishes are accompanied by tables showing the time required for electric cooking and the cost for electricity in each case.

The table reproduced supplements the following menu:

SUPPER
Sweetbreads and Mushrooms on Toast
Tomato and Endive Salad
Mayonnaise Dressing
Cheese Balls
Toasted Crackers
Margaret Cookies
Coffee

A "Who's In" Board for Salesmen

When a customer drops into the commercial office of the Syracuse (N. Y.) Lighting Company to talk



This "Who's In" board saves asking and answering questions regarding the salesman's whereabouts

over a motor installation with a power engineer he doesn't look around in awe and ask, "Is Mr. Maxwell in?" He simply looks at the bulletin board on the wall and finds out for himself.

Opposite each name on the board is

a wooden slide which just covers the "In" or "Out" panel. When a salesman leaves the office he pushes the slide opposite his name to the left, covering the word "In" and disclosing the word "Out." On his return he reverses the operation.

What the Appliance Saleswoman Ought to Know

A man who wanted an electrical device of some kind for a wedding gift went into a New York store and asked to look over the display.

This store is well known and well liked for its good sales methods.

The young woman clerk didn't scatter her fire—she suggested a grill, found out that the price was within reach, then proceeded to state clearly what could be done with this wonderful piece of apparatus.

She verbally prepared three kinds of breakfasts in about as many minutes, then finished up with a Sunday evening lunch. There was no hesitation, she knew what the grill could do and she knew how to state it. The man then explained that he had written to the small town where the couple lived to find out if they had electricity and received the information that it was "110 volts, 133 cycles." Some salesgirls we know would have gone "up in the air" at the word "cycles," but not this one.

"Surely," she assented, "this grill operates at 110 volts, and in heating appliances like these the 'cycles' make no difference."

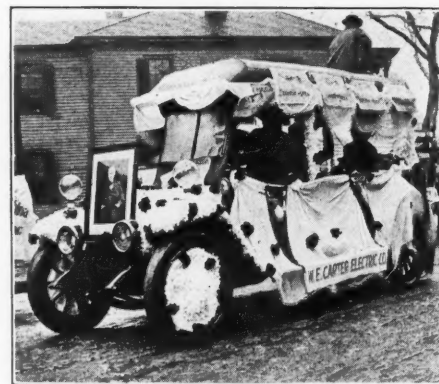
The moral of good over-the-counter selling is, then, to know your article, know what it will do, and be able to state it so that the customer with little knowledge of electricity or the man with little knowledge of household work will understand.

An Idea or Two in Trolley-Lighted Parade Floats

As a novelty for a local parade, the Carter Electric Company, Atlanta, Ga., devised the float pictured, providing to light the many lamps on the float by means of a trolley-pole connection held in the hands of the man seen seated on the roof of the truck. As the parade in which the float was exhibited followed the line of the trolley tracks throughout its length, it was only necessary to keep contact

with the trolley wire to have the float duly lighted throughout the parade.

This use of the trolley wire recalls the electrically lighted marchers' parade pulled off in a Mid-West city several years ago by a group of elec-

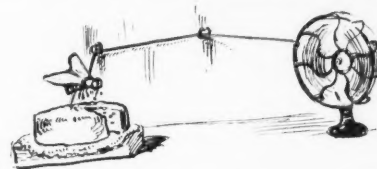


This float was electrically lighted from the street car trolley wire through a pole held by the man on the roof of the truck

trical men. Various banners and lamps were carried by the marchers, and energy to operate these was taken from the trolley circuit, through the medium of a "fisherman" carrying a metal-edged fishing pole, which he held against the trolley wire, while a summer man pushed a lawn mower along the track rails to complete the connection.

An Electric Fan That Flips the Fly

An attractive moving display which shows what the electric fan will do to the unpopular fly has been worked out by the General Electric Company. A large paper fly is hinged to the back of a paper cake and connected by means of a string with the framework of an oscillating electric fan. When the fan turns away from the cake the motion of the frame pulls



In this display an electric fan subjects a paper fly to selective draft

the fly into a vertical position, so it is seen above the cake. The fan then swings back and the resulting breeze blows the fly out of sight behind the cake. The outfit is very easily set up in the show window or on the counter.

Electric Cooking Reduces High Cost of Living

In connection with the sale of electric ranges the Minneapolis General Electric Company has established an electric cooking bureau, in charge of Miss Bernice Bell, an expert in domestic science and dietetics. This bureau not only supplies housewives with recipes, but is devoting attention to economy in the reduction of house-keeping costs by instructing customers in the possibilities of electric cooking. At present more than 400 electric ranges are in use in Minneapolis. The economy of electric cooking at Minneapolis is indicated by many testimonial letters similar in tone to that of J. A. Hunter, local manager of the Canadian Life Assurance Company:

"We had been using a gasoline range for cooking, and the cost of gasoline, even while the price of that commodity was low, never averaged less than \$5 per month. The cost of electricity for the last year has averaged \$3.78 per month, including the current required to operate a vacuum cleaning machine."

Let Them Fan Themselves

An adaption of the try-it-yourself plan of demonstration is to place a large wall fan outside your store on the first hot day, connecting it to a push button that is within easy reach of any passer-by. A sign reading, "Press the button and get cool" is all the invitation necessary. The fan

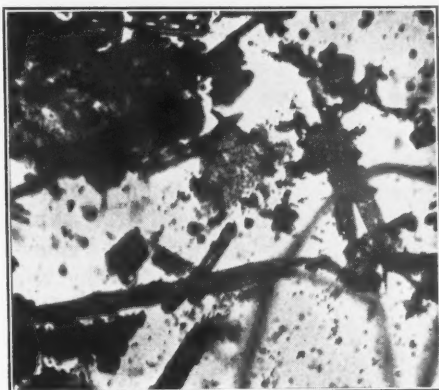


"Press the Button, and Cool Off"—a self-explanatory demonstration of electric-fan convenience that will help move fan stocks during the closing days of the heated period

should be placed high enough to be out of reach and out of danger, and big enough to throw a strong breeze. The window display should show fans of all prices, as this type of demonstration has been found to be effective among householders rather than business men, and small household fans were sold even though the demonstrator was a large office fan.

Dirt Analysis to Sell Vacuum Cleaners

"If a woman with a child could realize what surrounds her baby when it plays on the ordinary floor



A microphotograph of dirt sample which was 32 per cent iron

she would buy a vacuum cleaner immediately. Price and operating cost would not even be discussed." This thought prompted an investigation and an analysis of dirt at Youngstown, where C. E. Yacoll made the experiment with a sample taken with a suction sweeper from a rug in his own office.

By magnetic separation the sample was shown to be 32 per cent iron; it also contained masses of organic material consisting of carbon (soot) and shreds of various fibers, mostly cotton. Judging from the loss of the sample by ignition this organic content amounted to 41 per cent. The inorganic content consisted of an inert body, probably clay, silica and limestone, which amounted to 27 per cent of the sample. The large iron content was, of course, unusual and was due to the fact that iron and steel production is Youngstown's chief industrial endeavor. No test for bacteria was made, although it is hardly necessary to point out that where there is dust there are microbes.

Pictures Are Good Demonstrators

When it is possible to get a good series of photographs or other pictures showing the application of electrical appliances in the home, these can be used to advantage in connection with window trims. For example, if you have a good picture of a woman heating a baby milk-bottle warmer, frame this simply and set it up in the window beside the appliance. The passer-by sees the actual appliance, and alongside it the picture showing exactly how it is used.

Such pictures are procurable from time to time through the manufacturers of appliances and are always useful for simple window displays.

Selling Electric Washers with Economy Argument

Saving money and material in the home is one of the ways to furnish valuable help toward military success. The home-economy argument will never be more apt than it is at present. In its advertising in Cleveland newspapers, the Erner Electric Company is using this appeal to sell electric washing machines in an effective manner, and its example is one that may be followed with good results.

Wilson's Message To Every Woman

"HOME ECONOMY IS THE NATION'S GREATEST NEED"

President Wilson

Let Us Help You Do Your Share

This new kind of "Economy" does not mean hoarding money or doing without the necessary comforts of life, but it does mean efficient money spending and the elimination of waste. It means making every dollar do more than a dollar's duty.

We are able to help every Cleveland housewife—not only to save money, but save her own time and to insure longer wear for every article now laundered in her household. The investment is small and the savings big.

\$5.00

A MONTH

OR LESS **\$1.25 PER WEEK**

Eden

ELECTRIC WASHING & WRINGING MACHINE

This special payment plan offer is for a limited time only. Take advantage of it promptly.

"The Eden" Electric Washing and Wringing Machine is easy to operate and the cost per washing only a few cents. It will not only save your time, but your money and your trouble with sending a maid will be at an end—every woman will be able to dispense with a house's services entirely. Wash day troubles will be over. The Eden will not harm the most delicate fabrics.

A Free Trial in Your Own Home

Let us deliver an Eden to your home without obligation. Try it for a week, and you will wonder how you ever "kept house" without it. It won't be a question of "Can we afford it?" but rather a question of "Can we afford to be without it?"

Phone for Yours Now—Test It!

THE ERNER ELECTRIC CO.

Main 7520 Corner St. Clair and East Second Central 4475

THE FOLLOWING DEALERS CAN ALSO SUPPLY YOU:

Bay City Electric Co.	Meridian Electric Co.	Frank Electric Co.
10701 Euclid Ave.	10701 Euclid Ave.	1000 East 10th St.
Bay City Electric Co.	Bay City Electric Co.	Bay City Electric Co.
10701 Euclid Ave.	10701 Euclid Ave.	10701 Euclid Ave.
10701 Euclid Ave.	10701 Euclid Ave.	10701 Euclid Ave.
10701 Euclid Ave.	10701 Euclid Ave.	10701 Euclid Ave.

Where Woodrow Wilson's war words work washer wonders with women

STORE EQUIPMENT AND METHODS



How to Plan and Equip Your Store
—Systems Used in Successful Merchandising



"In Stock Now" Blanks

It happens quite often in the best of well-regulated stores that customers ask for items out of stock. That is especially true nowadays. A good way to offset some of the loss and some of the detrimental opinion coming from this condition is to make a practice of sending a note to the customer you disappointed, if the goods come in within a reasonable time, calling attention to the fact that they have been received. Such a note might be sent on a printed blank or form which would require only a filling in of the item. Take this form for example:

Dear Sir: The other day you called at our store for

Unfortunately, we were out of it at that time. We have, however, since received a new lot and we are glad to quote you the following prices on the goods:

.....
If you are still interested in buying or seeing the goods, call on us or telephone and we will do our best to serve you satisfactorily in the matter.

Yours very truly,

Where the name of the customer is not known, it will be an easy matter

to suggest that if he or she will leave name and address you will be glad, without any obligation being incurred, to send a notice when the goods arrive. It is not necessary to have or to use any stated form. Individual notes in each case may prove even more effective.

Put Lamps in Ice During Summer

A good hot-weather display is made by showing a comparison between the amount of heat given off by a carbon lamp and that given off by a Mazda lamp.

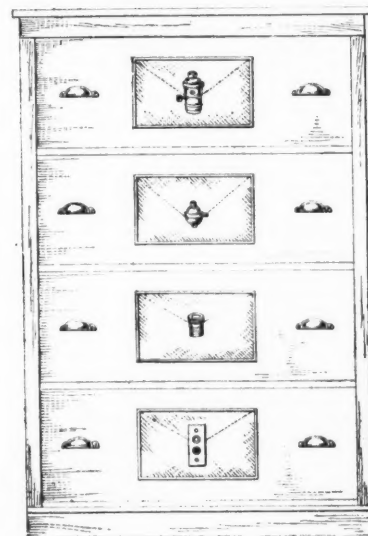
Take two equal pieces of ice and place them in packing boxes, removing the box covers and facing the open tops of the boxes toward the window. The boxes should be placed over pans and the drainage for the melting ice arranged. In one box place a Mazda lamp, in the other a carbon lamp, with a thermometer in each to register the temperatures.

One of these displays, suggested by the Edison Lamp Works, carried

the following card: "Don't use carbon lamps and pay for excessive heat and get dim, yellow light: use Edison Mazda lamps and get bright, white light with little heat." Another card in the same window read: "One carbon lamp gives off just as much heat as three Mazda lamps, but gives only one-third the light."

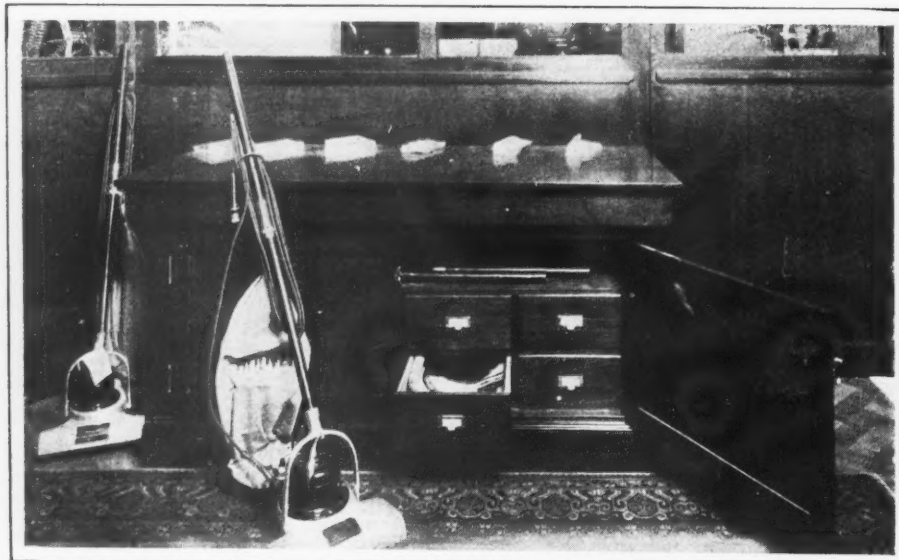
Keeping Stock in Windowed Wall Receptacles

A method of stocking small electrical fittings which adds to the convenience of the store and serves to re-



Glass insets in stock drawers bring electrical fittings to the customer's attention and add to the general appearance of the store.

A Store Cabinet for Vacuum Cleaners



Besides being awkward to handle, vacuum cleaner attachments are subject to chronic wanderlust unless systematically provided for. Here is a piece of store furniture designed especially to display them in a convenient and attractive manner. This particular cabinet was furnished to match the store woodwork and so forms a tasteful addition to the shop equipment.

mind the customer of his needs is pictured in the accompanying sketch. Each drawer is fitted with a glass window, and a sample of the fitting or appliance contained is wired in place as shown. This system has the advantage of the old scheme of fastening samples to the outside of containers, without the disordered appearance which that method gives to the side-walls.

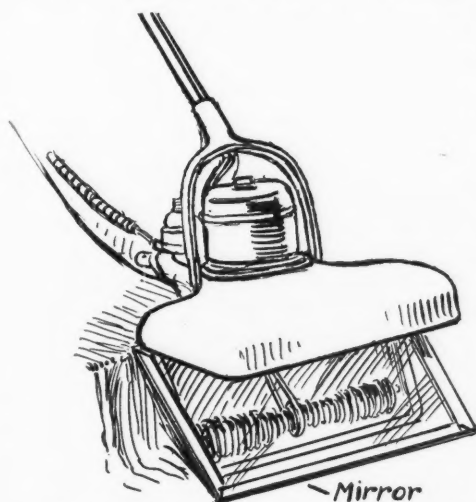
A Summertime Snowstorm

In a Western city the agent for a fan manufacturer covered the back of his window space with white cheesecloth. In the window he placed a number of fans pointing in different directions. A couple of quarts of white crepe confetti dumped on the floor completed the equipment. The fans caught the confetti and produced a livelier blizzard than had ever been experienced in winter. The

desirability of owning an electric fan could not have been more impressively shown.

Using A Mirror in Your Windows

One of the most useful articles in arranging window displays is an ordinary mirror. The illustration shows how a sweeper type of vacuum cleaner may be shown to advantage in connection with a reflecting surface. With a machine running this makes a motion feature that is very attractive. A piece of red, white and blue ribbon wound on the brush in a



The use of a mirror with an electric vacuum cleaner makes a real display of the machine

spiral adds color to the display. By connecting a flasher socket in the circuit the machine can be made to start and stop automatically, the periodic filling and sagging of the dust bag attracting greater attention.

The mirror has also been used to advantage to show how dishwashers and washing machines operate. The top of the machine on exhibition is removed and the mirror mounted over it at an angle of about 45 deg.

Door Signs

Try placing on the inside of your door where they will be seen by everyone going out of the store, the following signs, using one at a time and changing as the novelty wears off: "Thank you, call again!" "What have you forgotten to buy?" "If you weren't well served, see Tom," (giving the name of the proprietor or manager); "Did you forget anything?" "Your money back if you want it."

Testing Out the Windows That Sell Goods

"It's one thing to sit in a mahogany furnished office and lay out a window display," remarked a New England store manager, "and another to get your coat off, set up the display, and watch the cash results.

"We believe in handsome windows, but the real test of a display is the amount of coin it puts into the cash register. We change our windows every week, and try to make up our layouts a month in advance.

"The layouts are all filed carefully, and after a display has been used we note its success or failure on the drawing. Theories of 'psychological attraction' and 'interest retention' are all right, but we like to have real data on what the customer thinks. Our clerks ask visitors for their opinions of our windows, and if we are showing heating pads we check the sales on that article very carefully. You see, we try to make our windows *sell goods*."

The Clock Bulletin in the Show Window

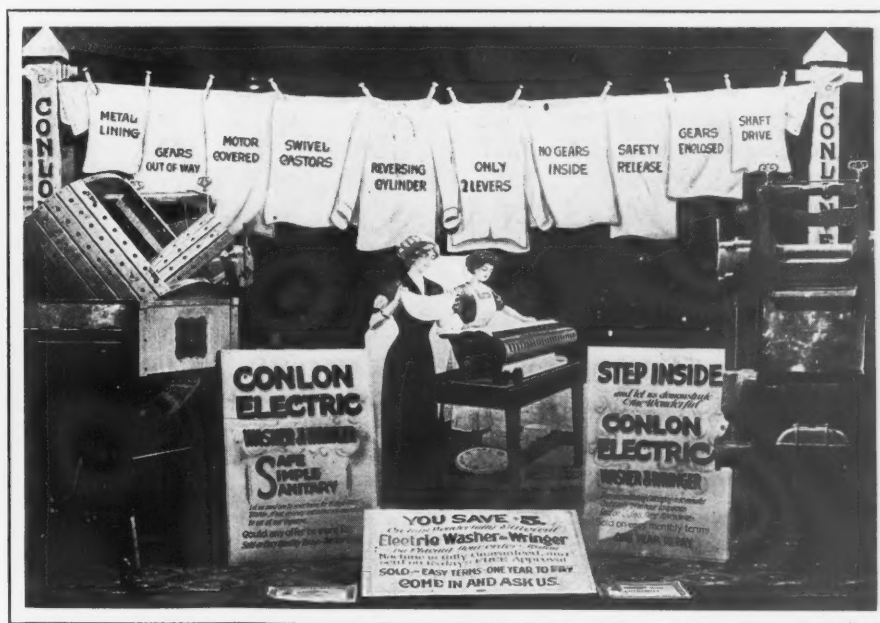
If you will put a reliable clock in a corner of your show window and keep it set accurately, you will inevitably get people into the habit of looking in the window as they pass. Persons who go that way regularly will form the habit of comparing their timepieces with yours, especially if you

put such a sign over it as "Is Your Watch Right?"

Don't take up this plan unless you are prepared to give the clock daily attention to keep it right. The advertising value of the clock will hinge upon a large blackboard, possibly of slate, which you should place right underneath the clock. And the value of this blackboard will depend upon your putting on it new messages daily about your store or stock, making them catchy and interesting. Write them plainly with white chalk. In order to put the right "pep" into what you say, avoid the trite old way of expressing it. Instead of saying, "Complete stock of Mazda lamps always on hand," say, "You need some new lamps at your house. How many? Get them now!"

A New Way to Show Window Placards

In endeavoring to make a washing machine window display that would be different, the manager of one of the stores of the Public Service Company of Northern Illinois hit upon the idea that the clothes on a clothesline could be used as placards to tell of the features of the machine. Each shirt on the line, as shown, carried a phrase. Each phrase was a sales argument for the machine displayed. The fact that the clothes, rather than ordinary cards, were used, gave the window the individuality which was sought.



A washing machine window display that is "different." Note that the usual window placards take the form of "wash" on a line

LIGHTING SALES METHODS



*Items of Experience
and Good Advice in Lighting Practice*

How Brick and Wood May Be Used in Ornamental Lighting

Two rather unusual methods of mounting ornamental lamps for outdoor lighting are shown in the accompanying illustrations. One of the lamps is at the entrance to a restricted section in Brooklyn. There



Rustic wood standards and brick structures of this type add much to outdoor lighting

the lamps, one on each side of the street, are mounted on brick piers. Conduit is run up inside of the pier and the switch is placed in a box inside of the brickwork and reached through an iron door. The incandescent lamp is placed within the large globe in an ornamental holder.

The other lamp is one of two rustic-wood standards set up on the lawn of a private residence in the same section. Wire is run underground to the pole and up the outside.

The Bait of the Rebate for the Old Lamp Bulb

In most families used electric light bulbs are thrown away. In offering a rebate for the old bulbs when new ones are purchased, it is not with the idea that the old ones have a value of any consequence, but that if any value is given them in the exchange it will

appeal to people as being just so much saved. The plan suggested is that of offering to allow a certain sum for old bulbs for a week, making it thus a week's special sale. In every house there are more or less bulbs that are useless and if they will bring 1-cent apiece in getting new ones, the prudent housewife is going to take advantage of the opportunity to save the possible 5 or 10 cents or more. The customer always buys more freely when there is a rebate that is all "velvet," and the store that makes use of this plan will sell enough more bulbs to make up for the deficiency in profits caused by the rebate.

Adding Attractiveness to Wall- paper Display with Better Lighting

Helping Cincinnati (Ohio) stores to get the most out of their lighting installations is one of the hobbies of W. A. Wadsworth's lighting squad of the Union Gas & Electric Company. Recently when "the store which sells Cincinnati its wall paper" suffered from insufficient illumination the squad prescribed electric lighting to replace gas mantles.



Gas mantles were replaced by electric lamps in scoop reflectors for lighting this wallpaper display.

The general store lighting is now done by 300-watt lamps in 12-in. round diffused globes and localized lighting is used for the movable display panels. Scoop reflectors direct the light on the swinging displays and the results are apparent from the picture. Each of the lamps for the panel lighting is equipped with a 100-watt lamp, and by means of pull-chain switches the salesman may keep the illumination focused on the display which interests the customer.

A Lamp Tester That Saves the Salesman's Time

All of the new salesrooms of the Public Service Company of Northern Illinois are installing a type of home-



The contact shell of the key socket on the cord is split so as to slip easily over the bases of the lamps in the carton

made lamp tester with which lamps sold by the box can be tested without being taken out of the carton. The testing device, as shown, consists of three sockets. One of these, a candelabra receptacle, is wired in multiple with a 110-volt circuit and the other two are wired in series on the same circuit. Into one of the two series sockets a fuse plug is inserted and into the other is inserted an attachment plug with 18 in. of cord and a key socket. The threaded shell contact of this socket is split so that it can be shoved over the base of a lamp without being turned.

When the clerk goes to test a box of lamps he opens the top of the carton and places the key socket over the lamp bases of the three lamps which are standing tips down. The other two lamps are then lifted out of the box, turned and tested, and then put back into the carton. In this way the time required to take three lamps out of the

box is saved and the danger of dropping three out of five lamps is eliminated. In testing electric irons or other devices the fuse plug is removed and a

lamp inserted. This throws the lamp in series with the device to be tested and eliminates the possibility of a short-circuit.

Selling Lighting Fixtures With and Without Good Lighting

BY M. LUCKIESH

We have in this country a small group of men (largely enrolled in the Illuminating Engineering Society) who have for their chief object the furtherance of the cause of good lighting and the consequent conservation of vision. On the other hand, there are the millions of persons who daily subject themselves, or are subjected, to bad lighting conditions.

How can these two groups meet?

The first group is doing its part, but cannot cover this great field where lighting knowledge is lacking. If a knowledge of a few simple principles could be brought to the masses, in fact if the masses could be awakened to the importance of proper lighting, the cause of good lighting would experience an uplift compared to which any previous impetus would dwindle to insignificance.

The "man-in-between," the fixture and accessory salesman, is in a position to be a great aid.

This middleman in general exhibits no more than a scanty appreciation of the principles of proper lighting. Yet there can be no excuse for being unacquainted with the simple principles, nor any for not applying such knowledge to the customer's problem. A great majority of misuses of light may be rectified by simple remedies. A bowl-frosted lamp, a slight change in the shape of the shade, a change from dark to light wallpaper, or the raising or lowering of the lighting unit are all remedies which work wonders.

Should not informed salesmen be a part of Service so often the slogan in the electrical field? The selling of fixtures should not be based solely or even primarily upon period design, popularity, etc., but should be based primarily upon the service rendered. Service to the eyesight should be considered as far more important than style and design.

In the early development of lighting accessories the scientific and ar-

tistic elements were generally considered by different individuals. Only in recent years have manufacturers attempted to strike a proper balance of these two factors. The salesman should know his wares, but

When Does 23 Plus 10 Equal 50?

Answer: When 23 per cent is your "overhead," and 10 per cent is the profit you want. For then you have to add to your costs for labor and material not "23 and 10," but "32 and 14"—and "32 and 14" figures out in simplest form as plain "50." So, we repeat, to cover 23 per cent overhead and 10 per cent profit, add 50 per cent to your costs for labor and material.

are the latter only fixtures, lamps, etc? Does not the customer enter the store really to purchase good lighting? He does not necessarily obtain this if he carries away a fixture.

Indeed, the salesman may make the sale and wrap up the bundle with either good or bad lighting according to what he sells and tells. In either case the cost may be the same, but not the profits. In the case of good lighting, service has been rendered, the customer profits and, by the precept of modern business, the dealer profits. This is one of those cases where each of the interested parties profits.

There are other reasons for the salesman to be familiar with the principles of good lighting, but this one should suffice. Good-lighting propaganda needs the aid of the middleman who is the point of contact with the public. In general, the public is not getting much of this aid at present—a conclusion resulting from several years' observation—yet such service should be regarded as a business asset as well as a humanitarian act.

Making Lighted Office Windows Carry a Patriotic Message

BY STUART ROGERS

Valley Electrical Supply Company, Fresno, Cal.



Note how the lighted windows form the letters U. S.



The owners of the Griffith-McKenzie office building in Fresno, Cal., were induced to try out the idea of lighting certain windows so as to form the letters "U. S." in the otherwise darkened facade. The object was a patriotic demonstration on the night of July 4. However, the plan worked out so prettily and attracted such attention that it has been used several times since on evenings when the offices were not in use.

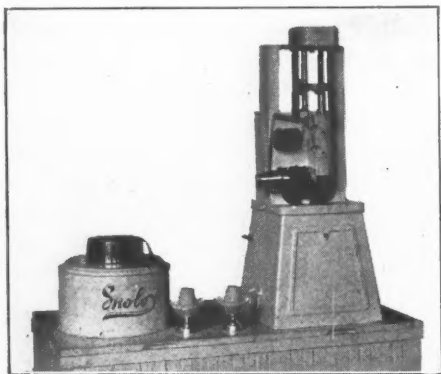
The lights were burned from 8.30 p. m. until about 11 o'clock. A single 1000-watt Mazda in each room sufficed to give the desired effect, and the simple expedient of drawing the shades darkened the windows not needed to form the letters. It is suggested that the star-spangled banner might be effectively shown on buildings of suitable shape by using shades of blue paper with a central star-shaped opening, forming the red stripes with colored lights.

NEW MERCHANDISE TO SELL AND WHERE TO BUY IT

*Appliances, Socket Devices and Wiring
Supplies Which Manufacturers and
Jobbers Are Putting on the Market*

Makes Fruited Ices with Turn of a Button

A machine that makes a fruit and ice cream delicacy for summer refreshment purposes is being manufactured by the Snolo Company of Chicago and is being



A machine that makes ice and fruit delicacies by electricity should be popular

leased to refreshment parlors. The machine consists of a bladed revolving disk which shaves ice and delivers it by centrifugal force into a cup mold. Fruit juices poured over the finely-cut ice complete this concoction. The machines are furnished with either alternating-current or direct-current 0.25-hp. motors.

Tea Wagon Wired for Service

D. C. Lamb & Company, Ottawa, Ill., has placed several styles of electric tea wagons on the market. A feature of this line of electric furniture is the adjustable table reel under the tray rack



The adjustable cord reel on this electrically wired tea wagon gives it a cruising radius of 16 ft. from its base

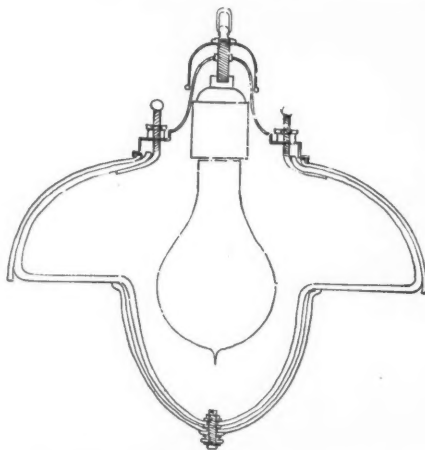
which takes care of the attachment cord. This reel operates like a window shade and permits any convenient length of

cord up to 16 ft. to be unrolled or rolled up at will. There are two 660-volt outlets at the sides of the table for attaching the appliance plugs. The wagons are being supplied in mahogany, oak and walnut. Practically all styles measure 17 in. wide by 27 in. long by 29 in. high. The receptacles and attachment plug are the products of Harvey Hubbell, Inc.

Flexibility and Dust Protection Secured in New Lighting Fixture

A new type of lighting fixture designed to preserve the initial efficiency of the unit as long as possible, and to reduce the cost of maintenance has been produced by Young & Egan, Inc., 489 Fifth Avenue, New York City.

The fixture consists of a one-piece clear inclosing globe to eliminate dust. A top member is superimposed, consist-



This fixture transmits light and excludes dust

ing of a white opal bowl-shaped reflector, which furnishes direct lighting, and a bottom member which is attached underneath the inclosing globe securing the semi-indirect feature and at the same time acting as a screen over the source of light.

The top and bottom opal members are separate and can be made in tinted or iridescent glass. This flexibility can be carried further by using top and bottom members of enamel steel. These separate members can also be made in ruby glass for exit purposes or in blue glass to produce daylight effects. Three sizes of this unit are made as follows: 12 in. in diameter for a 100 watt lamp, 16 in. for lamps up to 300 watts and 18 in. for lamps including 500 watts.

Pull Switch for Two Circuits

Switches for two-circuit service-making electrolier connections have been added to the "newwrinkle line" of the Bryant Electric Company of Bridgeport, Conn. These switches have been furnished heretofore, however, only in the single-pole construction. Successive pulls of the operating chain will engage respectively the circuits "1," "2," "1 and 2" and "off." This switch can be used with any of the forty-one caps and bases made by this manufacturer, being interchangeable with any of the other standard



Pull switch with four contact positions

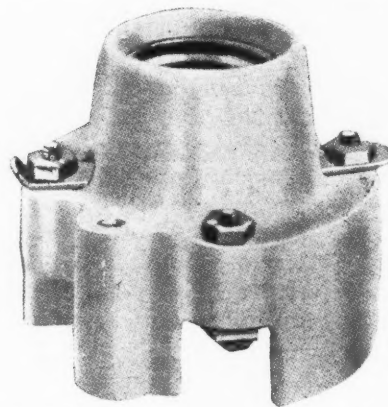
bodies. A knurled lock nut turned up on the shoulder fastens the switch securely in position.

Brewing Coffee at Boiling Point

The latest addition to the line of electrically-operated coffee filters manufactured by the Silex Company, 45 High Street, Boston, Mass., is an outfit equipped with a "water control." By means of this feature water is retained in the lower of the two compartments composing the coffee maker until reaching the boiling point, when it is released from the lower compartment and rises into the upper section containing finely pulverized coffee. When the current is disconnected the filtered breakfast nectar returns to the lower container, whence it is dispensed to the waiting cups. "Pyrex" glass is used in the filter.

A Flasher and Socket in One Piece

The M. C. Ryan Company of Phoenix, N. Y., is making a porcelain flasher socket for use with 25, 40 and 50-watt

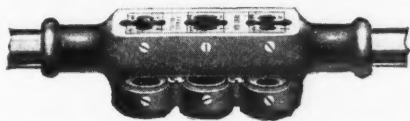


This flasher consumes no current when the lamp is out

lamps. The contact mechanism operates on the thermal principle and permits no current to flow while the light is out.

Threading Three Sizes of Conduit with One Stock

A pipe-threading die stock that carries three different sizes of dies, each adjusted and ready for use, is one of the new products of the Greenfield (Mass.) Tap & Die Corporation. The tools are

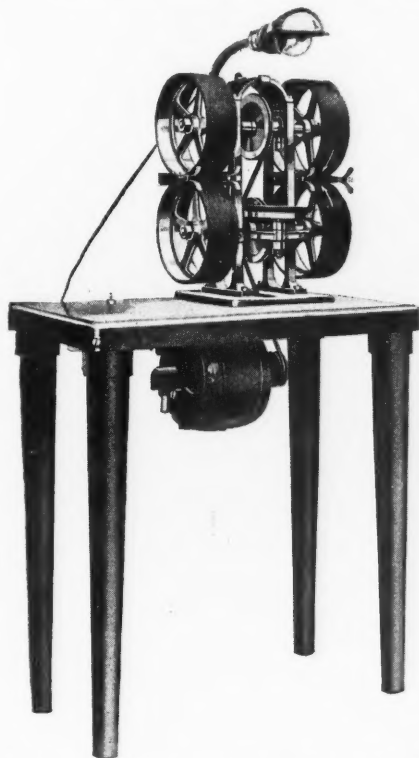


When the electrician's helper carries the tools he appreciates this stock with its three sizes of dies in one frame

made in sets containing three sizes from $\frac{1}{8}$ in. to 1 in. Lost motion, lost parts or lost time, the manufacturer states, are unknown in handling this "Trio" die stock.

Renewing Youth of Razor Blades Electrically

The razor-blade sharpener made by the A. E. Hill Manufacturing Company, Atlanta, Ga., sharpens the blade on the same principle that has always been used in sharpening the old-style razor by hand. The only difference is that with this machine the hone and strops are rotated instead of moving the razor over them. The hone is in the form of a flat disk, which rotates in a horizontal plane, and the strops are mounted on



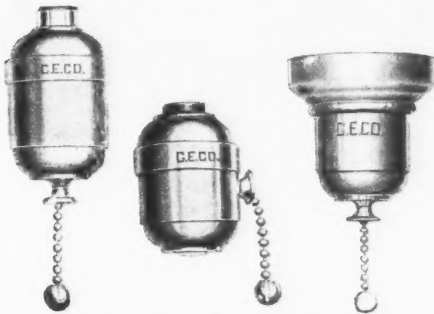
This motor driven machine puts a new edge on safety razor blades

wheels, which run in vertical planes. A special holder fits every style of blade. A lamp bracket is mounted on the

head of the machine so as to throw a good light directly upon the work. The stropping wheels and hone are belt-driven from a 1/10-hp. Robbins & Myers motor.

Pull Switches with Fluted Catches

The General Electric Company, Schenectady, N. Y., has originated a line of fluted-catch pull switches, in 250-watt, 250-volt sizes, including pull switches with side and bottom out-

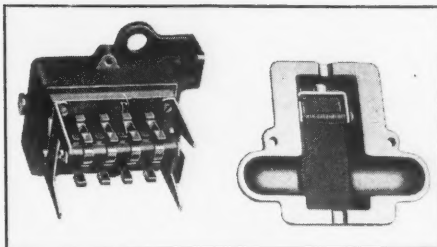


The caps and bases of these pull switches are interchangeable

lets, and rosette switches with side outlets. These switches are furnished with short chains and 10 ft. of best quality linen cord. Extra length chain guides and insulated chains can be furnished. The standard finish is old or brushed brass and, the maker states, they conform in every way with the National Electrical Code standard. The caps and bases of these devices are the same as those used with fluted catch sockets and receptacles and are therefore interchangeable with socket shells and interiors.

An A. C. Oil Switch for Reversing Service

An oil switch for use with small alternating-current motors has been developed by the Crocker-Wheeler Company,

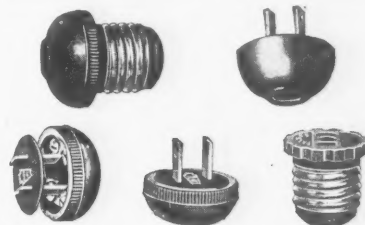


Here are the parts of an oil switch designed to reverse small alternating-current motors

Ampere, N. J. The moving contacts, which are mounted on a fiber-insulated rod, connect with the center row of stationary contacts and one of the outside rows of contacts when the switch is in the "forward" position. The center and other outside rows of contacts are used with the "reverse" position. This switch movement, it is stated, gives a large break on two points per pole.

Standard Plug Made with Closed Cap

The Paiste plug with composition cap is being marketed by the Hart & Hegeman Manufacturing Company, Hartford, Conn. As the caps are often connected to silver or nickel cooking devices, etc.,

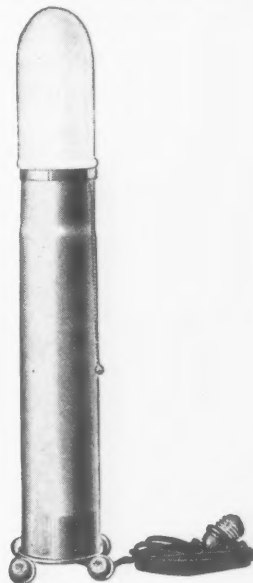


Interchangeable plugs and receptacles permit convenient changing of appliances

neatness in design has been made a feature. The fiber cover on the cap, which is lifted up when wiring, is pushed back into place when through, covering up the unsightly wire ends and insulation. The plugs, which are made of strong composition, are of the standard type, fitting the majority of receptacles.

Using a 3-In. Shell for a Portable Lamp

A portable table lamp for the base of which a 3-in. brass field gun shell is used, is being made and marketed by the Conneaut Metal Works, Conneaut, Ohio. These shell cases, the manufacturer states, are obtained from munition factories after having been rejected for slight imperfections by army inspectors. A 3-in. bullet globe of "monax" glass is mounted at the top. Any size of lamp, it is pointed out, up to 75 watt may be used with the outfit. Besides an attach-

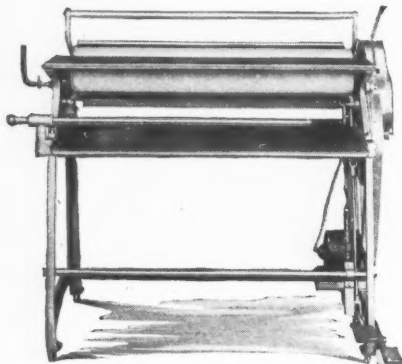


A genuine artillery shell makes a unique war-time lamp

ment plug and 10 ft. of cord, a silk flag, 5 in. x 8 in. in size, is furnished with the lamp.

Electric Ironing Machine for Home Use

The electrically driven ironing machine which has just been placed on the market by the Apex Appliance Company, 3223 West Thirtieth Street, Chicago, will, it is claimed, iron perfectly everything in the average family washing



Irons electrically in the home laundry

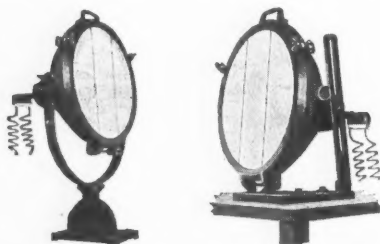
except the most elaborately ruffled gowns and lingerie.

The principle upon which the ironer works is the same as that of the hand iron except that the action is reversed. Instead of rubbing the iron on the goods, the articles are pressed against the ironing surface.

A padded roll carries the clothing under the ironing surface, which is curved so that when set in position its entire surface presses against the piece to be ironed. Heating units are located inside the "shoe" and are arranged to maintain an even heat over the entire surface. A Robbins & Myers motor is used to drive the machine, through a belt.

An All-Direction Floodlight Projector

Floodlight projectors having one-piece cast-iron or aluminum bodies which form the housing for the reflector have been developed by the George Cutter Company, South Bend, Ind. The body serves as an



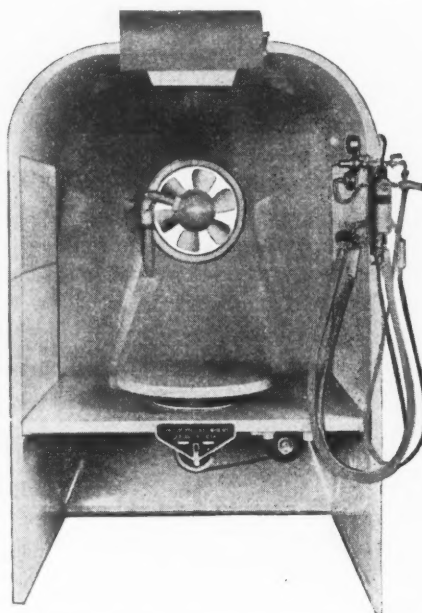
Padlocking the front door of this projector prevents lamp theft

adequate protection against denting and abuse to the reflector, which must retain a true parabolic shape for correct projector lighting. In designing the metal body provision was made for changing of reflectors when it is desired to change

the distribution of light. The unit can be adjusted to project the light rays in any direction, it being possible to rotate the body of the lamp through 360 deg. in any plane. Besides permitting further directional adjustment, by mounting the unit on a pipe standard, platform or pole, it may be suspended from a ceiling or wall. The socket is designed for adjustment to change the focus, the spread of the beam being altered to suit any particular condition. There are no openings in the body. The lamp is cooled by the circulation of air between the reflector and body within the parabola, the air being cooled by radiation from the body.

Fast Finishing of Small Parts with Electric Sprayer

Outfits for spraying the finish on wood and metal products with compressed air are made by the De Vilbiss Manufacturing Company of Toledo, Ohio. These outfits come in a wide range of capacities

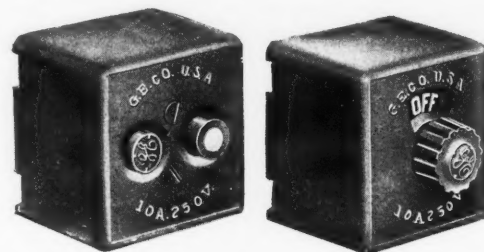


A motor-driven turntable can be supplied with the electric sprayer

for handling very small parts of large pieces. The booths are constructed of heavy sheet steel on an angle-iron frame, with wireglass windows in the sides and top and with a sheet-steel floor. Reflectors and sockets are built in the booths for lamps, and a portable spotlight is supplied and so arranged that it can be clamped on the frame in any desired position to direct the light upon the work. A 1/6-hp. Robbins & Myers motor of special design is used to drive the six-blade 16-in. exhaust fan which is employed. The motor is completely inclosed to protect it from the fumes, but is provided with thorough ventilation by a stream of cool air which is drawn through the motor by the fan. Where desired the sprayer is equipped with an electric heater for raising the temperature of the air and finishing material before it leaves the nozzle.

Push and Turn Switches for Panelboard Use

The General Electric Company's new panelboard switches are made in both push-button and rotary-snap types, with round and square bases for panelboards having either vertical or horizontal mains. They are rated at 10 amp., 250 volts, double pole. With this new type the metal parts are entirely inclosed,



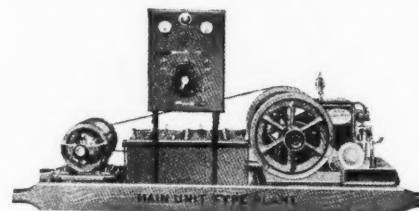
These switches can be converted into the locking type when desired

practically eliminating all danger to the operator. The outside inclosing case is of black composition, smooth and of high finish. If required these switches can be furnished in locking type, operated by a key instead of a push button.

The round-base rotary type is a standard, metal-covered snap switch with base slotted for busbars. This can be made locking by substituting the G. E. locking attachment for rotary switches in place of the snap button.

Taking Lighting Comfort to Prospects

A compact lighting and power plant, designed for dealers to use as a demonstrator, that can be placed on a truck and transported from place to place, has been developed by the Main Electric Company of Pittsburgh, Pa. The entire plant is mounted on one set of rails, including the engine, storage battery, dynamo and switchboard. The small-size switchboard used with this plant folds over, permitting the complete plant to be shipped in one box all set up, battery charged, all connections made, ready for immediate use on its arrival. This type of portable unit plant is built in sizes designed for twenty-five, forty,

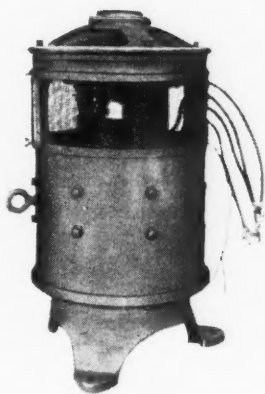


Here are prime mover, generator, battery and switchboard—all in one package

fifty and seventy-five lamps. All wiring is in conduit. The engine carries a waterproof built-in magneto, and the portable type batteries are inclosed, making the outfit particularly serviceable for demonstrating about the country.

Motor for Centrifugal Pump Drive

In the accompanying illustration is shown a type of heavy-duty vertical motor with special mountings for direct connection to the driving shaft of a centrifugal pump. This motor is capable



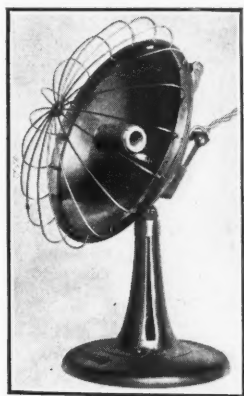
Electric motor for pumping develops 39 hp. at 900 r.p.m.

of developing 39 hp. at 900 r.p.m. The motor and pump, it is claimed, can handle large quantities of water for indefinite periods. The motors are specially designed for this class of work by the Diehl Manufacturing Company of Elizabeth, N. J.

Electric Heater Built Like Portable Lamp

A portable electric heater for home use is being manufactured by the Hot-point Electric Heating Company of Ontario, Cal. The outfit, which is known as the "Hedlite" heater, is substantially constructed of pressed steel, on the principle of the portable lamp.

A steel reflector 9.5 in. in diameter is connected to the top of the pedestal by a hinged joint which is adjustable to numerous positions from horizontal to di-



Throws a heat wave 6 ft.

agonal, upward. This reflector, which is of a special parabolic design, is heavily plated with a triple coat of highly polished copper. The back of the reflector is finished in black enamel.

Wire protecting guards over the heating element are attached to a copper-

plated rim. These guards are easily removable for cleaning the reflector or changing the heating element which is also detachable.

The heating element consists of a composition core 1 in. in diameter, around which is wound high resistance wire. The wire is first wound into a small coil and then wound around the composition core, giving a large amount of resistance material in a small area. This coil will run, it is stated, at normal temperature at about 1200 deg. Fahr.

Speedy Assembly Possible with Take-Down Vise Bench

A portable vise bench which, it is claimed, can be set up in less than one minute's time, has been brought out by the Standard Iron Works, Inc., 508 East Seventy-fourth Street, New York City.



Pipe bending can also be done on this portable bench

All that is needed is to place a piece of pipe on top of the feed screw, against a beam or ceiling, give the feed screw a few turns and the bench is ready for use. In the accompanying illustration the bench is shown without the vise.

Making Electric Cooking Economical for Small Families

A small electric range for the use of small families, for apartments, bungalows and summer cottages has been developed by Landers, Frary & Clark of New Britain, Conn.

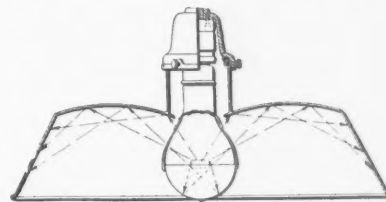
The device has two heaters, one a hot plate with two zones of heat, comprising a small center 3 in. in diameter for use with small pans, and an outside ring, the complete unit being 8 in. in diameter and consuming 900 watts. The other unit is a 600-watt radiant grill type similar to that used in the "Universal" line of grills.

A small portable oven equipped with heat indicator and capable of holding a 5-lb. roast of meat is supplied, together with two deep steel nickel-plated pans and a reflector plate. Control is obtained through snap switches conven-

iently located. The entire outfit occupies a space 21½ in. long by 13¼ in. wide by 15 in. high.

Preventing Lamp Glare with Cap Diffuser

A reflector cap diffuser intended for use in all industrial installations where high intensity of light is required, and where this intensity must be retained



A reflecting cap placed over the bulb cuts down glare

without glare, has been developed by the Ivanhoe-Regent Works of the General Electric Company of Cleveland, Ohio. The glare of the lamp is eliminated by shielding the filament with a cap fitting over the bottom of the bulb. This cap is made of silvered metal, polished on the inside, so that it will redirect the light with very little loss. It is claimed that all glare from bright objects in the working plane is eliminated by providing an upper reflector which diffuses the light, both from the lamp and from the silvered cap, and directs the illuminating rays downward and over a wide area.

A Portable Electric Cooker

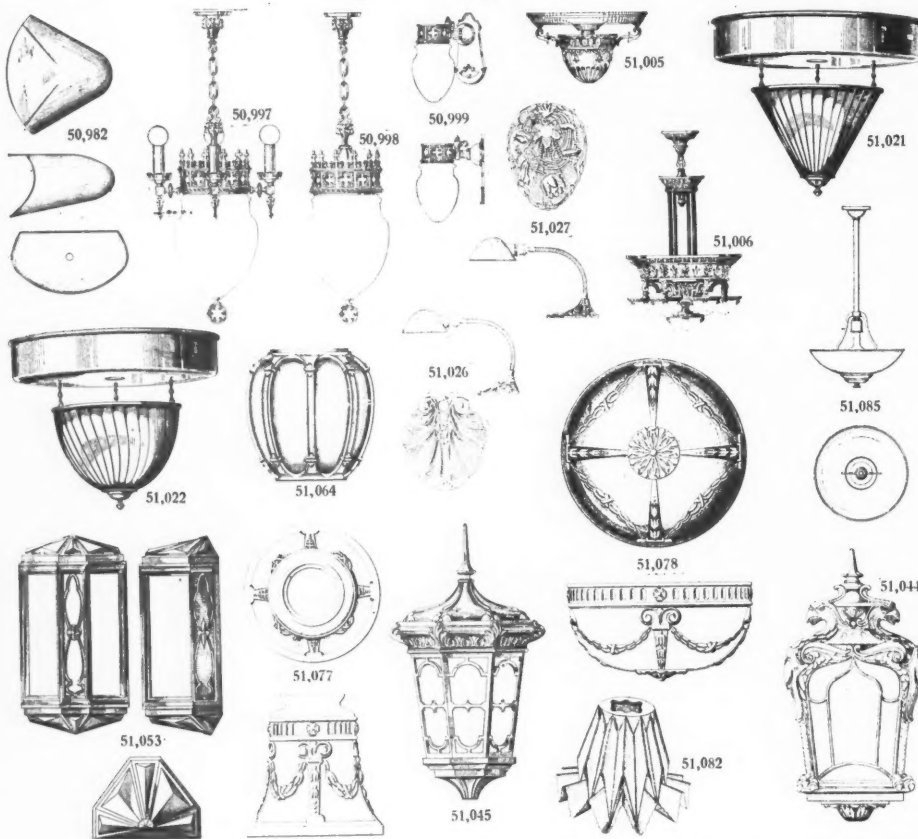
The hot plate shown in the accompanying illustration is a product of the Standard Electric Stove Company of Toledo, Ohio. The resistor ribbon is cut to give exactly the number of watts desired by measuring each element with a wattmeter. The nichrome resistance ribbon used in the heating element is coiled and laid into a clay product having high heat conductivity, although a non-conductor of electricity. The clay is baked at a temperature of 1500 deg. to secure a glass finish. To prevent radiation of heat below the element, a rock mineral-wool pad is held in place by



Portable hot plate can be used wherever there is an outlet

a rimmed metal bowl and porcelain terminal block, to which leads are attached. There are no channels or recesses to accumulate dirt. These heaters are made for 110 volts unless otherwise specified.

Record of Lighting Fixture Patents

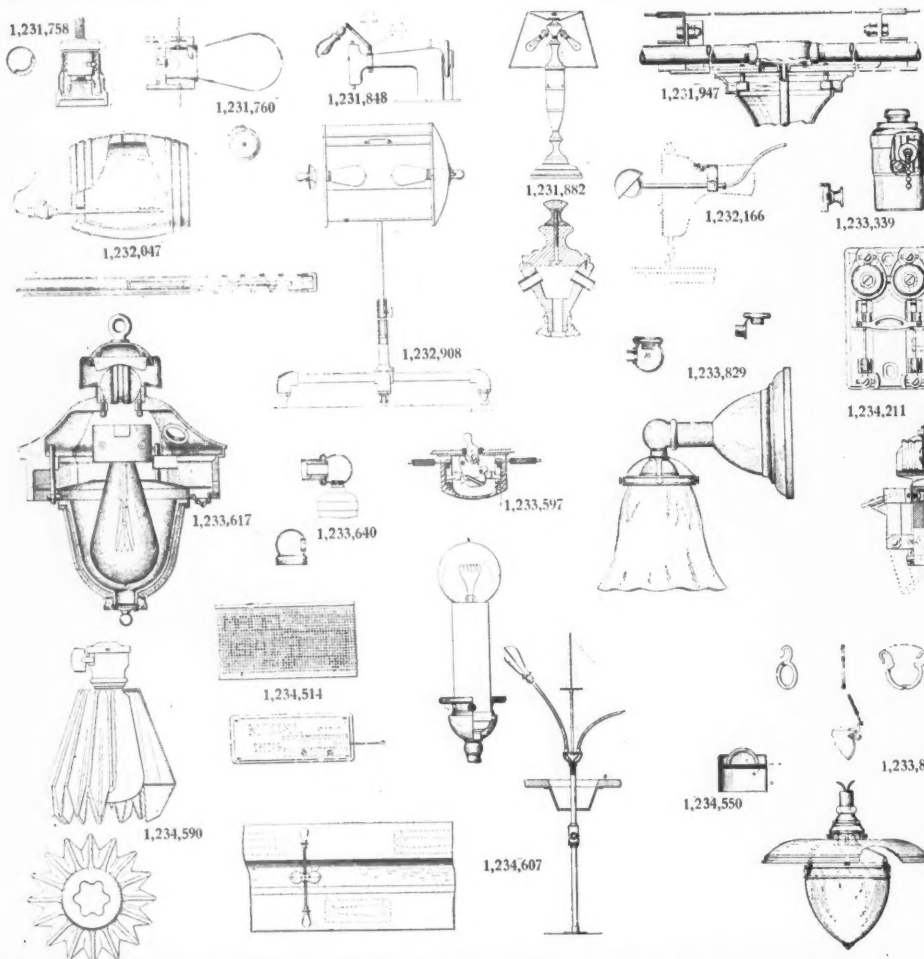


Design Patents

The following are ALL the design patents pertaining to lighting materials, issued by the U. S. Patent Office between June 27 and July 27, 1917, inclusive:

- 50,982. Light Reflector.** Archibald N. Gollings, Akron, Ohio. Filed March 15, 1917. Issued July 3, 1917. Term, fourteen years.
- 50,997, 50,998, and 50,999. Lighting Fixture.** Frederick K. Maerz, Cleveland Ohio, assignor to the Scott-Ullman Company, Cleveland, Ohio. Filed May 11, 1917. Issued July 3, 1917. Term, three and one-half years.
- 51,005. Chandelier for a Lighting Fixture.** Robert G. Wagner and Ernest J. Schweitzer, Los Angeles, Cal. Filed March 12, 1917. Issued July 3, 1917. Term, fourteen years.
- 51,006. Chandelier for a Lighting Fixture.** Robert G. Wagner and Ernest J. Schweitzer, Los Angeles, Cal. Filed March 3, 1917. Issued July 3, 1917.
- 51,021 and 51,022. Lighting Fixture.** Otto H. Mohr, Oakland, Cal., assignor to Ohm Company, Chicago, Ill. Filed March 29, 1917. Issued July 10, 1917. Term, seven years.
- 51,026 and 51,027. Desk Lamp.** Reuben Milton Retherford, Muncie, Ind. Filed March 22, 1917. Issued July 10, 1917. Term, seven years.
- 51,044, 51,045. Lighting Fixture.** Paul Mohrmann, Chicago, Ill., assignor to Friedley Voshardt Company, Chicago, Ill. Filed May 31, 1917. Issued July 17, 1917. Term, seven years.
- 51,053. Lighting Fixture.** Lester R. Wellman, Chicago, Ill., assignor to Friedley Voshardt Company, Chicago, Ill. Filed May 31, 1917. Issued July 17, 1917. Term, seven years.
- 51,044. Globe.** Joseph W. Gosling, Schenectady, N. Y., assignor to General Electric Company, New York. Filed Aug. 8, 1916. Issued July 24, 1917. Term, fourteen years.
- 51,077, 51,078. Ornamental Lighting Fixture.** Raymond V. Owen, St. Louis, Mo., assignor to Gillinder Brothers, Port Jervis, N. Y. Filed June 7, 1917. Issued July 24, 1917. Term, seven years.
- 51,082. Lamp Shade.** Leonhard Schoenmehl, Brooklyn, N. Y. Filed May 19, 1917. Issued July 24, 1917. Term, three and one-half years.
- 51,085. Light Fixture.** Francis A. Vaughn, Milwaukee, Wis. Filed Feb. 17, 1917. Issued July 24, 1917. Term, fourteen years.

Structural Patents



- 1,231,758. Universal Lamp Base.** Louis O. Lieber, Los Angeles, Cal. Filed Dec. 27, 1915. Issued July 3, 1917.
- 1,231,760. Universal Receptacle.** Louis O. Lieber, Los Angeles, Cal. Filed Feb. 23, 1916. Issued July 3, 1917.
- 1,231,848. Electric Light Support.** Giuseppe A. Centolella, Clinton, N. Y. Filed May 23, 1916. Issued July 3, 1917.
- 1,231,882. Cluster Top for Electric Lamps.** Edmund J. Y. Hammett, Philadelphia, Pa. Filed Nov. 7, 1916. Issued July 3, 1917.
- 1,231,947. Supporting Bracket for Lamps.** Lindsley Schepmoes, Hasbrouck Heights, N. J., assignor to the Safety Car Heating & Lighting Company. Filed Sept. 30, 1915. Issued July 3, 1917.
- 1,232,047. Cooperage Lamp.** Arthur H. Klotz, Dayton, Ohio. Filed Aug. 25, 1916. Issued July 3, 1917.
- 1,232,166. Light Attachment for Sewing Machines.** Harry Burton Allyn, Poughkeepsie, and Angelo Torquato Bertolini, New York, N. Y. Filed Dec. 7, 1916. Issued July 3, 1917.
- 1,232,908. Light Treatment Apparatus.** Ernest C. Feyrer, Erie, Pa., assignor of one-half to Clarence E. Letzinger, Erie, Pa. Filed Feb. 26, 1917. Issued July 10, 1917.
- 1,233,339. Chain Guide for Pull Sock-etc.** David D. Gordon, Chicago, Ill., assignor to the Yost Electric Manufacturing Company, Toledo, Ohio. Filed Nov. 21, 1916. Issued July 17, 1917.
- 1,233,597. Flush Switch.** William J. Newton, Lynbrook, N. Y., assignor to Newton Manufacturing Company, Lynbrook, N. Y. Filed May 6, 1915. Issued July 17, 1917.
- 1,233,617. Street Lantern.** Arthur J. Sweet, Wauwatosa, Wis. Filed May 14, 1915. Issued July 17, 1917.
- 1,233,640. Conjunction Member for Electric Fixtures.** George A. Boomer, Waterbury, Conn., assignor to the Plume & Atwood Manufacturing Company, Waterbury, Conn. Filed Oct. 13, 1916. Issued July 17, 1917.
- 1,233,882. Candle Cup for Lighting Fixtures.** Walter R. Kahns, Chicago, Ill., assignor to J. H. White Manufacturing Company, Brooklyn, N. Y. Filed Feb. 7, 1917. Issued July 17, 1917.
- 1,232,211. Electric Switch.** Clarence D. Platt, Bridgeport, Conn. Filed March 22, 1916. Issued July 24, 1917.
- 1,234,514. Electric Sign.** Henry W. Walden, New York, N. Y. Filed Dec. 17, 1915. Issued July 24, 1917.
- 1,234,550. Luminous Push Button Attachment.** Charles H. Leube, Alameda, Cal. Filed March 21, 1917. Issued July 24, 1917.
- 1,234,590. Lamp Shade for Incandescent Lights.** John A. Whaley, New York, N. Y. Filed April 6, 1917. Issued July 24, 1917.

Copies of illustrations and specifications of any of these patents may be obtained from the Commissioner of Patents, Washington, D. C., for 5 cents each

SALES HELPS FOR THE DEALER



*What the Manufacturer Offers
to Help You Get More Trade*



Putting National Publicity Benefits in the Dealer's Hands

Among the manufacturers who believe in paving the way for retail selling with national advertising is the Hotpoint Electric Heating Company, Ontario, Cal.

In order to give the dealer time ahead to plan his co-ordinate publicity, this firm has issued a schedule of its popular magazine advertising for the remainder of 1917. This schedule shows reproductions of the advertisements as they will appear in the *Saturday Evening Post*, *Ladies' Home Journal* and *Good Housekeeping*, and gives the dates when the various layouts will be used. A complete line of attractive sales helps is available and all the dealer has to do is to ask for the material and use it.

Now Is the Time to Photograph Your Fan Windows for Cash-Prize Contest!

These are the days when the subject of electric fans is uppermost in the minds of both customer and electrical merchant. Probably right now your own window contains a display of electric fans that is attracting the attention of every passer-by, and helping you to sell more breeze-givers.

If you have such a fan window, call a photographer quick. Or take six or eight snapshots at it yourself with your trusty kodak—different positions and different exposures, so that you will be sure to get several "good ones." At all events, get a picture of your fan window. And here's the reason:

Before Oct. 1, 1917, a large number of electrical dealers are going to better their sales methods, broaden their use of dealer helps, and sell a profitable flock of electric fans. In addition, six of the number will receive cash prizes for their efforts, ranging from \$100 to \$10.

As a means of encouraging dealers to reach out and get fan business which national popular publicity has

already started in their direction, and as a spur to the general improvement of selling methods, the Western Electric Company, 195 Broadway, New York City, is conducting a fan merchandising contest, announcements of which have appeared in the past issues of *ELECTRICAL MERCHANDISING*.

Know Your Costs

If your "overhead" runs 23 per cent of your year's gross business, and

If you want to make 10 per cent profit,

To find your selling price—

You must add 50 per cent to your costs for labor and material.

Any dealer can enter the contest, and has only to apply for a standard information blank on which the following information is to be recorded for the guidance of the judges: window display, methods used in house-

to-house canvassing, personal sales arguments used, use of printed advertising matter, local newspaper advertising, lantern slides, increase of 1917 fan business over 1916, general campaign as a whole, and a statement of what the contestant would like in the way of selling helps from the manufacturers in 1918.

But take your fan window picture right away!

Electric Cooking Recipes

The Hughes Electric Heating Company has issued a forty-eight-page booklet entitled "What Every Kitchen Needs." Twenty-four pages of this book are devoted to the reproduction of electric cooking recipes by Alice Bradley, principal of Miss Farmer's School of Cookery, Boston; Marion Harris Neil, former cookery editor of *Ladies' Home Journal*; Janet McKenzie Hill, editor of *American Cookery*; Mrs. E. K. Lemcke-Barkhausen, principal of the Greater New York Cooking School, and Mildred Maddocks, director of Good Housekeeping Institute. A feature of other descriptive pages on electric range types is the legend near each picture which says: "See what 'watt' means on page 47."

Flags Used to Demonstrate Color Values Obtained With "Daylight" Lamps



A patriotic window featuring the flags of the United States and its Allies makes one of the best possible displays for demonstrating the accurate color values obtained with blue-bulb "day-light" lamps. The illustration shows an exhibit of Edison Mazda C-2 lamps in the Brooklyn store of George Weiderman, who is also, by the way, chairman of the Electrical Merchandising Committee of the National Electrical Contractors' Association

GOSSIP OF THE TRADE



*Glimpses of Electrical Men as
Caught by Lens and Pencil*

"Round Table School" at Annual Convention of N. E. C. A.

One of the features of the annual convention of the National Electrical Contractors' Association to be held at New Orleans, Oct. 10 to 13, will be a "Round Table School" which will be conducted by the labor cost data committee of the Ohio State Association. For more than two years the Ohio committee has been at work compiling data on the actual cost of labor in contracting work, and the "Round Table School" promises to be a valuable innovation at the national gathering.

The Electrical Man's Opportunity with the U. S. Signal Corps

A real opportunity to serve Uncle Sam during the present emergency is offered to electrically trained men by the Signal Enlisted Reserve Corps.

Signal Corps companies are of three types—the "wire" company which handles installations of telephone and telegraph lines and incidental equipment; the "radio" or wireless detachment, and the "outpost." The latter class maintains and operates the communication apparatus used at the advance posts of the army.

In the Signal Enlisted Reserve the reservists serve but fifteen days a year during times of peace, and when called in national emergency they receive the pay and rating of regular army men of their rank.

In the opinion of one of the enlistment officers, the following classes of men desired for the Signal Corps are arranged in the order of importance: telegraph operators, radio operators, telephone operators, electricians, chauffeurs, horseshoers, farmers, cooks and bakers.

It is desired that men interested in enlistment should apply to their nearest recruiting office, where they can receive complete information in regard to the work of this division of

the army. The department offices are as follows:

Boston, Mass., Nottingham Chambers.

New York, N. Y., Governor's Island.
Charleston, S. C., Peoples Bank Building.

Chicago, Ill., Federal Building.
Houston, Tex., Fort Sam Houston.
San Francisco, Cal., Chronicle Building.

The Western Electric Company has an honor roll of 636 employees, for this number either have been called into service, or as members of the National Guard, Naval Militia and various reserves are subject to call. In addition to those men already un-



When Uncle Sam wants to get seven hundred million dollars' worth of new ships built in a hurry, he gets a Chicago electrical manufacturer to do the job.

Edward N. Hurley, the new chairman of the United States Shipping Board, is ex-president of the Hurley Machine Company, makers of electric washers, former U. S. trade commissioner to the South American republics, past-president of the Illinois Manufacturers' Association, and was until recently member and chairman of the Federal Trade Commission.

Scorching days in Washington this month have no terrors for the new chairman of the shipping board, despite the mountain of work that confronts him. He is avoiding the heat by getting busy in the early morn., and starting his slumbers with the twilight. Or as old Frank Adams puts it—"Hurley to bed and Hurley to rise."

der the military or naval oath, two complete companies of the Reserve Signal Corps of seventy-eight picked men each are now in process of formation.

I. E. S. to Open Convention- by-Mail in September

This year the regular annual convention of the Illuminating Engineering Society will be replaced by a correspondence session. When the session is opened in September the following papers will be released: Presidential address, by W. J. Serrill; report of committee on nomenclature and standards, Dr. A. E. Kennelly, chairman, and C. H. Sharp, secretary; "Illuminating Engineering Publicity," by G. H. Stickney; "Economics of Large Building Lighting," by C. L. Law and J. E. Buckley; "Illumination Intensities in Large New York Department Stores," by W. F. Little and J. F. Dick.

President Serrill's address, not being submitted for discussion, will appear in the transactions of the society issued about the first of September. The three papers and the report will be distributed to anyone who applies for them to the society at its headquarters, 29 West Thirty-ninth Street, New York, N. Y. A general invitation is issued for written discussion of each of these papers to be printed with the names in the transactions of the society. Other papers of this convention will be released in similar fashion during October, November and December respectively.

New Jersey Electrical Contractors Adopt Co-operation Platform

The semi-annual meeting of the Electrical Contractors' Association of New Jersey was held at Price's Hotel, Long Branch, N. J., July 14, with President Charles R. Newman presiding. Addresses were made by W. L. Goodwin and others outlining the plan for reorganizing the association, and the new constitution and by-laws were unanimously adopted. Following the business session the 200 contractors present enjoyed a clambake. Pheneas Proctor was chairman of the convention committee, the other members being Jewell Vandyke and Benj. F. Sprague. Officers of the New Jersey



Here are the Chicago Electric Club-Jovian League committee chairmen who were much in evidence at the club's annual picnic on July 19, and departing, left behind them footprints on the sands of Lake Michigan. Starting on the left, where the sun seems to be hottest, the inventory is itemized as follows: W. M. Goodrich, J. N. Pierce, F. M. Rosseland, H. A. Mott, G. C. Keech, W. E. Bischoff and G. A. Harter. Photo by courtesy of Chicago Herald.

Association are Charles R. Newman, president; Samuel H. Smith, vice-president; Paul H. Jaehnig, treasurer, and Jewell Vandyke, secretary.

Worcester (Mass.) Electrical Contractors Jollify

The members of the Worcester (Mass.) Electrical Contractors' Association left Worcester in automobiles on July 28, for a light lunch at the Sterling Inn, Sterling, Mass.

After a general handshake and songs appropriate to the electrical industry, the contractors were then conveyed by automobiles to the Tatassitt Canoe Club on Lake Quinsigamon, where athletic sports were indulged in, and at 6 o'clock all sat down to an elaborate banquet, when speeches were made by members, and by invited guests, including J. E. Wilson, secretary of the Massachusetts Electrical Contractors' Association.

Among those present were: F. S. Miller, W. H. Stanton, E. W. Miller, E. C. Warren, C. C. Coghlin, W. A. Merrill, Henry Knight, F. L. Ham, J. P. Coghlin, J. Scrimgeour, Herbert Low, Peter V. Latour, Vincent Woodcock, P. A. Coghlin, Leo Lavin, M. J. Stone, S. B. Libby, J. B. Sanborn and J. E. Wilson.

Minneapolis Jovian League to Help Dealers

Announcement has been made that the Minneapolis Jovian League is now laying plans for a big electrical palace at the Minnesota State Fair. The fair will be held some time during the summer. Practically every

dealer and contractor in Minneapolis has signified his intention to co-operate with the league to the fullest extent.

Midsummer Jollification Is Great Factor in Holding Interest in Local Electric Club

The Electric Club-Jovian League of Chicago believes in picnics. It enjoys one every summer. Sometimes they cost the club money; sometimes the picnic committee enriches the club's treasury. This year the entire proceeds went to the Red Cross. But regardless of finances the annual midsummer festivities are good for the club. They help tide over interest in the organization from the end of regular meetings in June to the opening in the fall season. They promote that good-fellowship which grows best in the atmosphere of vacation.

This year, on July 19, the Chicago bunch went to the sand dunes on the southern shores of Lake Michigan. And they had a good time. Gus Harter, chairman of the advertising committee, did not invite anyone but the ladies and the kiddies. He figured that if he did this the men would come without being invited. The attendance totaled about 700, so Gus must have been right. General Chairman J. N. Pierce, who conceived the



Future captains of the electrical industry at the Chicago Electric Club picnic. Among those present are Shirley Underwood, Paul Koch, Jack Pierce, Ruth Lininger and Isabella Eustis.



This is J. E. Wilson, special representative of the Massachusetts Electrical Contractors' Association, who has been in the electrical business ever since he was knee high to one of Mr. Edison's old jumbo generators

idea of having the children cared for in a big tent while fond parents enjoyed the beach, earned a lot of well-deserved popularity.

The V. V. Fittings Company, 1910 North Sixth Street, Philadelphia, Pa., has just issued a new forty-page catalog covering new types of V. V. fittings, safety devices and vapor-proof fittings. The bulletin is carefully illustrated, listed and indexed, and will be sent free to any address upon request.

River Excursion of St. Louis Jovian League Big Success

As one usually dignified central station manager remarked to an equally staid purchasing agent when they were disembarking from the boat in the twilight "this excursion has certainly been a bear." The attendance—nearly 2000 people—was phenomenal. The excursion was held aboard the river steamer *Alton* which pulled out of St. Louis for "somewhere on the Mississippi" on Friday evening, July 20. The boat returned at [time of return stricken out by the censor].

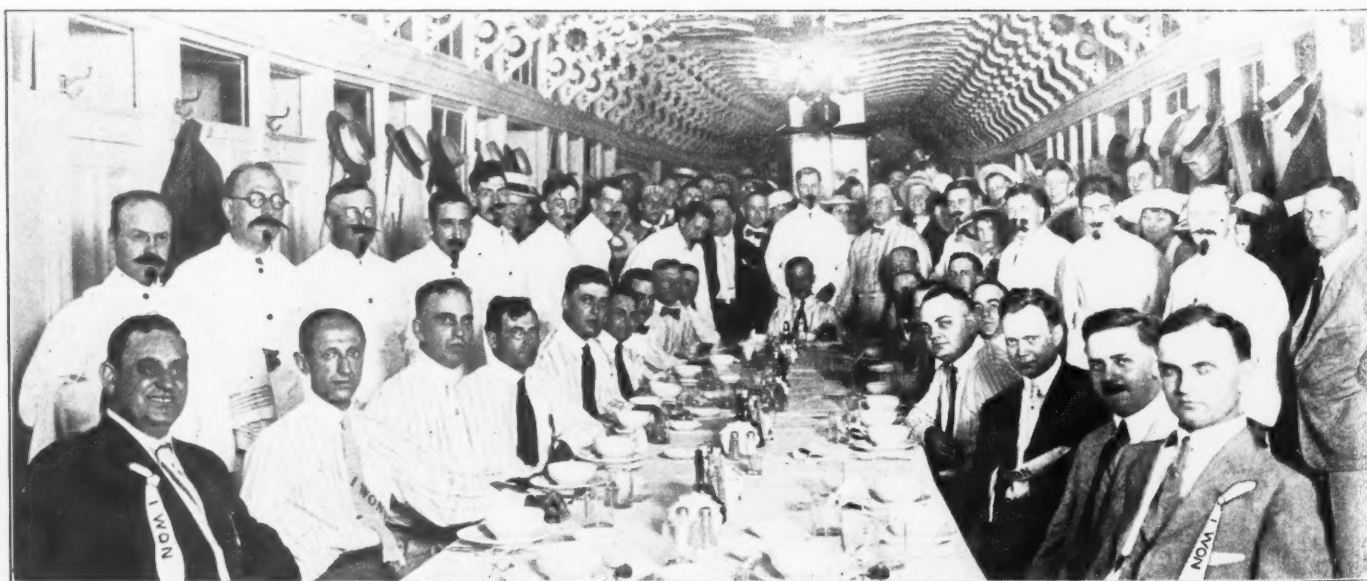
The unusual attendance was largely due to the activity of two competing ticket-selling teams known as the "Recruiters" and the "Conscriptors." These two teams were officered by the "Gold Dust Twins," Fred Johnson of the Western Electric Company and E. C. Johnston of the East St. Louis & Suburban Railway Company, respectively. After remarkable and hard fought drives by both of the combatant teams the "Recruiters" were forced to retreat, the "Conscriptors" having won the day. Immediately the "Recruiters" were forced to serve their captors (see the accompanying photograph) with a sumptuous banquet. So that each of the "Recruiters" might hide his shame he was permitted to disguise himself in a waiter's costume and a regulation French-waiter mustache and goatee.

Local electrical firms donated more



There's plenty of fun in the Engineers, to judge from this picture of E. C. Thomas and A. G. Faber, formerly salesmen of the St. Louis office of the Westinghouse Electric & Manufacturing Company. Both are second lieutenants in the 14th Provisional Regiment of Engineers, Fort Leavenworth, Kan.

than \$500 worth of electrical household appliances which were distributed as prizes during the trip. An election of officers for the local league for the coming term was held aboard the boat with the following results: President, W. N. Matthews, president W. N. Matthews & Brother; vice-president, E. H. Waddington, sales manager Western Electric Company; secretary-treasurer, George McD. Johns, superintendent fire-alarm system of St. Louis; executive committee; Bruce Cameron, transportation manager United Railways; C. E. Ruffner, vice-president Union Electric Light Company; S. M. Boyer, manager of the local office of the General Electric Company, and Horace Beck of the Light & Development Company.



The St. Louis Jovian banquet on the Mississippi River steamboat *The Alton*. The winning ticket-selling team, "The Conscriptors," are shown being served by the losing team, "The Recruiters," who are disguised as waiters. The idea of the competing teams, captained by the "Gold Dust Twins," receives credit for the record attendance. Seated from left to right around the table are: C. E. Michel, George S. Watts, J. P. Casey, James S. Warren, W. J. Delaney, Chester F. Crowley, L. H. Keller, J. H. Brown, R. C. Kellogg, E. C.

Johnston, chairman, Fred B. Adam, F. O. Grayson, R. E. Stewart, J. F. Kidd, Jules A. Baker, vice-chairman, W. R. Joyce, and A. G. Verner.

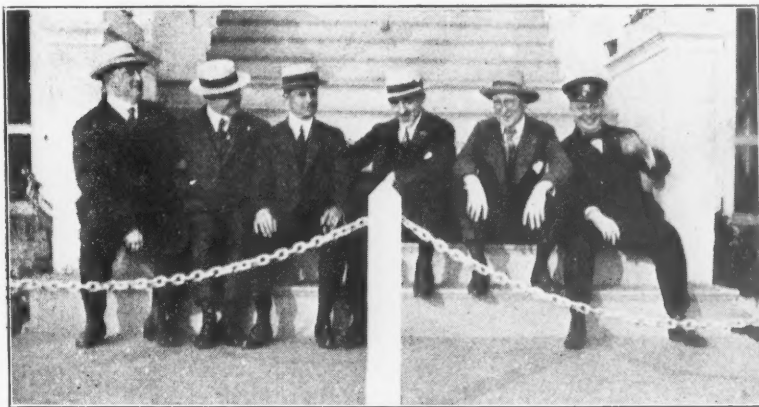
Standing, left to right: E. E. Woodbury, Ralph E. Perry, W. J. Musser, G. H. Cohn, T. S. Hardy, Horace E. Fritschle, R. C. Houck, Isaac Elkas, T. P. Gleeson, E. H. Waddington, chairman entertainment committee, George W. Picksen, Michael O'Brien, G. L. Gamp and T. R. Fowler.

New York Electrical Contractors Association Celebrates Twenty-Fifth Anniversary

On Aug. 3 a dinner was given by the Electrical Contractors' Association of New York City to commemorate the twenty-fifth anniversary of the formation of the association. The meeting was held at the clubroom, 38 West Thirty-second Street, and there were present a total of sixty-six guests and members.

Solomon Davis of the Conduit Wiring Company served as toastmaster and also made a presentation speech to Charles L. Eidlitz and Edwin S. Kiefer, who are the two honorary charter members.

Mr. Eidlitz made a most entertaining speech when it came to his turn to present the souvenirs to the four



Here's the New York Jovian League's Joint Committee. The joint is the Harlem Yacht Club, on the day of the League's annual frolic. Beginning operations on the left, they answer roll-call in the following order: Secretary J. W. Wynne Jones, B. J. Alpin, Warren Hinchcliffe, "Bill" Dippel, "Jimmy" Betts and Commodore P. J. Schneider

If 10 per Cent Is a Fair Profit

Then 50 per cent is the proper amount to add to your labor and material costs to cover 23 per cent overhead and earn for you 10 per cent profit on the job. Fifty per cent and no less! Why? Figure it out for yourself. "Labor and material costs plus 50 per cent."

active charter members, Solomon Davis, James R. Strong, John C. Hatzel and Joseph P. Hall. The souvenirs consisted of fobs suitably engraved, illustrating the progress of the art between 1892 and 1917.

Other speakers of the evening were L. K. Comstock, president of the Institute of Electrical Contractors, who described the activities of that organization, and W. L. Goodwin who spoke on the new plans and proposed constitution for the N. E. C. A.

"Electrical Machinery"—Principles and Operation of Motors and Generators

Among electrical contractors there has long been a demand for a practical book like the one on "Electrical Machinery" just compiled by Terrill Croft, which takes up first the simple principles that underly electric motors and generators, and treats also of the operation of such machines and the various methods of

curing the electrical troubles ordinarily experienced. The subject has been happily handled without mathematics, the author wisely substituting many diagrams and sketches to make clear his points to the practical mind. The chapters on "principles, construction and characteristics" of alternating-current generators and motors will be studied carefully by the student earnestly seeking a firm grasp of the subject, while the practical kinks of operation and the remedying of troubles, which follow in later chapters, afford immediate applications of the principles already learned.

The book includes the essential points of motor and generator operation, while omitting the theoretical matter which the average man engaged in electrical work is not likely to find necessary. "Electrical Machinery," by Terrill Croft, is published by the McGraw-Hill Book Company, Inc., 239 West Thirty-ninth Street, New York City; price \$2.



Who says electrical men don't have time to eat? Every year these Public Service electrical magnates—correction, stenographer—magnets, get together, shake the dust of Newark, N. J., airily from their heels and skip to camp. Evidently Bill Eichorn, at the extreme left, has just arrived and was too hungry to disinvest. W. J. Marbin still wears a collar, too. C. J. Van Gieson occupies the chair, and the man with the box seat is Elmer Bray, supported on the right by "Van" Dillen

Independent Electrical Contractors' Association of New York Has Outing

The Independent Electrical Contractors' Association of Greater New York held its thirteenth annual outing on July 14 at Kissena Park Hotel, Flushing, L. I. Besides the contractors, other branches of the industry were represented, one of the main purposes of the outing being to emphasize mutual interests.

The present officers are: Louis Freed, president; L. D. Strauss, vice-president; A. Whiteley, treasurer; W. D. Munro, financial secretary; C. B. Montagriff, corresponding secretary; L. Seigelbaum, sergeant-at-arms. Regular meetings are held at 6 p. m. on the first and third Wednesdays of each month in New York.

Tom Bibber was presented with a beautiful diamond scarf pin during the sales conference of the Luminous Unit Company of St. Louis, July 24, 25, 26 and 27. The sales conference consisted of two sessions of three hours each per day, which were occupied by interesting papers and spirited discussions. On the day following the conference, at a general jollification and picnic at Fern Glenn, prizes for maximum sales were presented. In attendance at the conference were: E. F. Guth, president; O. D. Guth, treasurer; G. S. Watts, secretary; T. H. Bibber,



Before Belgium decided to take advantage of Germany's lack of military preparedness and pounced on that poor defenseless nation when the Kaiser wasn't looking, George Delaney was an automobile specialist for the Western Electric Company at St. Louis. Now he has a new job and a new suit, for both of which he entertains a just pride

sales manager; E. L. Plattner and J. A. Bialick, service department; E. H. Murphy, engineer, and the following salesmen: D. C. Barnum, Joe Chassaing, F. B. Fresen, C. C. Schoen, C. C. Gilhart, P. W. Koch, A. O. Dicker, C. M. Wempner, R. G. Kittle, L. J. Kohaus and A. J. Quintard.



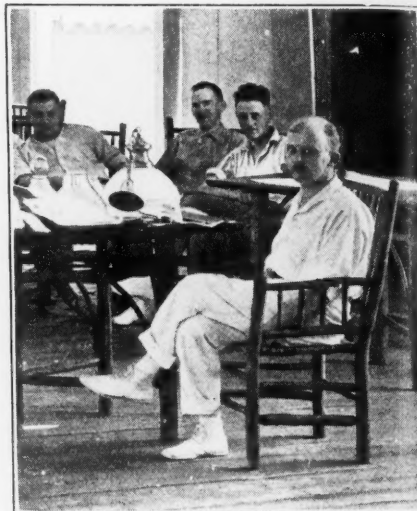
You can't fool us. They weren't in over their ankles—either of 'em! We don't know much about beach warfare, but we'll bet that the kodak Brooklyn-Edison Jones is cherishing would never stand submarine exposure, and if Chairman George Wiederman of the Electrical Merchandising Committee can dive under without extinguishing that cigarette we'll buy him a regular smoke.

Can You Answer These Fifteen Electric-Range Questions?

At the Jefferson Hotel, Richmond, Va., Aug. 17, the sales managers of electric lighting companies of the South Atlantic Seaboard, together with manufacturers' representatives, are to hold an electric cookery meeting to exchange ideas on selling electric ranges and the "electric cooking idea." A list of fifteen questions, as follows, has been sent out in advance, and those who attend the convention are to be asked to give answers and to discuss those offered:

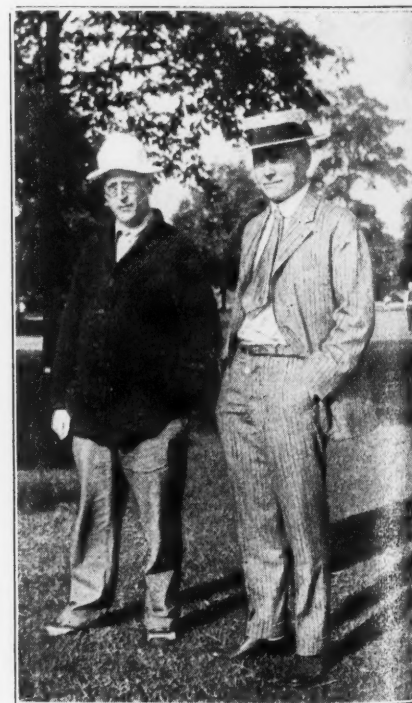
1. Is a 3.5-cent rate low enough to obtain the electric cooking?
 2. What class of people are the best prospects for electric cooking?
 3. How can we solve the "heating of water" problem?
 4. Do you find it practical to put ranges in homes where colored servants are employed?
 5. How do you evade a request to place an electric range on trial?
 6. Should the lighting company or the customers pay for the cost of the inside wiring?
 7. Which is the better, six monthly or twelve monthly payments?
 8. Do you recommend the selling of ranges at a cut price?
 9. What advertising do you recommend in connection with a range campaign?
 10. How do you overcome the objection that the electric range will not heat the kitchen in the winter?
 11. Is it necessary to teach the housewives how to cook with the electric range? How do you accomplish this?
 12. Do you recommend public demonstrations on the electric range? If so, how should they be conducted?
 13. How do you train your salesmen to do their work effectively? Do you furnish an instructor to train your customers?
 14. How do you recommend that salesmen be paid—on a salary or a commission basis?
 15. Do you advise the use of a saleslady in preference to a salesman?
- Note.*—In trying to answer these questions, don't jump at conclusions. For instance, question No. 12, you may answer in the affirmative, yet at the meeting E. G. Couch of Raleigh will convince you of your mistake. He knows, because he has tried it out.

The Cheltenham Electric Company, manufacturer of electrical specialties at 314 Armat Street, Philadelphia, Pa., announces that it has made arrangements to have Messrs. Hight & Stout, 143 Liberty Street, New York City, act as its New York representatives. Mr. Hight has been the New York representatives of the Weber Electric Company for a number of years, and Mr. Stout was formerly with the Bryant company.



Here's a man who knows more about Prussians and prisons than anybody in the business. He is Charles Franck, and he was the Holophane glass man in Belgium before the war. At present he is the Holophane glass man in the United States, and if the Kaiser comes this way Monsieur Franck will probably become the Holophane glass man at the North Pole.

The Calebaugh Self-Lubricating Carbon Company of Philadelphia, Pa., announces that on account of increased business its plant will be moved to 1508-1518 Columbia Avenue. The offices, however, will remain at 1503 Columbia Avenue. A new descriptive bulletin has just been issued, which the firm offers to send on request.



When Teddy was President he had a pugilist trainer to keep him fit. T. N. Howard, president of the Phoenix Glass Company, has a trainer that gives him fits. The trainer is W. F. Minor, general manager of Ivanhoe-Regent Works of the General Electric Company, and he keeps President Howard on the jump in the battle for reflector business.

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